THE GENESEE FARMER.

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THE GENESEE FARMER.

SATURDAY, NOVEMBER 23, 1839.

CAUSE AND EFFECT.

In Sharon Turner's late work on Population, its range, laws, &c., a work embracing much information and research, after a comparison of the relative ages of separate masses of population in England and in the United States, and showing from the latest census of both countries, that there is a much larger proportion of individuals in the former over 50 years of age than in the latter, the following remarks occur:

"We have said that America has more young persons of sixteen, and fewer elder persons of fifty and upward, than Great Britain. The consequence of this difference in these portions of their population, must be, that society in the United States, will be less under the government and influence of the mature and the aged, and will be more restless, and agitated by its violent, headstrong, and impassioned junior members. There will be a minor proportion of moral wisdom, and of intellectual life and pursuits, than in our own island; because there will be a less proportion of the living heads in which such qualities reside. From the account of many recent travelers, the American social world seems to be an illustration of these inferences."

That the Americans are more active, or even restless, than the English, is true. We are more excitable, pursue objects considered desirable with greater ardor, and have much less dread of encountering obstacles than our elder brethren across the Atlantic. But we are inclined to think that the cause assigned by Mr. Turner for this difference, is not the only one, or the most operative; since in all our excitements, those of a moral, political, or religious nature, men of more than fifty, are usually the most energetic and active agents. We believe that the enterprising, restless, go-ahead spirit, so characteristic of the American Anglo-Saxon, is more the result of the circumstances in which he has been placed, than of any difference of age in any class of the population. In the United States, almost every thing is in a continual state of change. The country itself, its social institutions, the individuals who govern it, are all subject to popular opinion, and therefore modified at the will of the people. In England, all is fixed and permanent; there is no room for change, and the mass have ceased to interest themselves, or rather, as they have never been allowed to trouble themselves about public affairs, feel no interest in them. The government furnishes the laws, as it does the religion, ready made to the people, and all the latter have to do is to pay. Whether young or old, men are not apt to be active and exert themselves, when exertion must be unavailing. In the United States, the people feel that they have accomplished much, and are, therefore, ready to attempt more; in England, the people feel there is no room for change, or hope from effort, and therefore attempt nothing. In this, we think, rather than in a difference of age, lies the cause which creates the acknowledged difference in energy and action between the two nations. Inform the great mass of the English people; put a book and newspaper into every cottage n that kingdom, and teach the inmates to read them; give them individual profit from personal enterprise, and the hope of success from effort; and we doubt not that in a few years, the boy of sixteen, and the grey haired man of fifty, would be as they are here, alike subject to the hopes and impulses that must govern all, where the way to success is open to all.

WOOL GROWING.

Some farmers have supposed that fine wool could not be grown in this country with profit, and have, by crosses, or otherwise, been reducing the qualities of their wool. That *all* farmers can produce wool from their flocks, of the highest grades, no one who witnesses the general treatment of their sheep in the summer, or in the winter, will for a moment suppose; but that, with proper care in breeding and in keeping, wool of high grades can be produced profitably, the following letter will, we think, prove. Messrs. Sibley and Barnard, of Hopkinton, N. H., obtained the premium for wool at the Fair of the New-York Institute last year; and their flocks, or the produce, it would seem, has not decreased in value. That the growing of fine wool will repay the cultivator, we have no doubt; but unless sheep can receive the attention they need, the farmer had better confine himself to the middling or even coarser qualities. Mr. Lawrence, the writer of the letter, is well known as one of the most extensive wool staplers, or purchasers, in the country. We copy from the 'Farmer's Visitor':

LOWELL, *July* 29, 1839.

JOSEPH BARNARD, Esq.—*Dear Sir:* It affords me peculiar gratification to state to you, that your wool has gone through the severe ordeal the "Stapling Board," and comes out head and shoulders over any thing we have ever before seen. It is really superb, and reflects the highest honor on you and your state. In this Republic, the most honorable man is he who arrives at the highest point of the art he professes; and this is as it should be. I send you below a memorandum of the sorting, with the figures. It shows a balance due you of $4,45, which I will send you by first opportunity. Where is Mr. Sibley? I shall require his wool to go with yours for some cloth for the next October Show: please say so to him. Do not care for Devon cattle, when you have the best sheep in the country, with plenty of land for a flock of 1000.

Your friend, truly, SAMUEL LAWRENCE.

Super Extra,	32 lbs.	$1,00	$32,00
Extra,	124 "	90	111,60
Prime,	154 "	80	123,20
Fine,	103 "	70	72,10
Second,	5¼ "	60	3,30
Third,	½ "	50	25
Dirt,	3½ "		
	422½ lbs.		$342,45

The Buttonwood—(Platanus occidentalis.)

This is one of the most magnificent trees of the American forest, found in all parts of the country, particularly on the banks of rivers and creeks, but only seen in all its glory on the rich river bottoms of the western states, where it grows to a size scarcely credible to those who have not witnessed the luxuriance of vegetation in those regions. This tree, which is also known by the name of plane, and sycamore, is a tree of very rapid growth, is ornamental in its appearance, and has been found valuable for many mechanical purposes. For fuel, it is not equal to hickory, maple, or oak, but is superior to most of the ligher woods for that purpose.—In durability, it ranks pretty fair; but its principal use is in boards for cabinet uses, as it is firm, works smooth, does not warp as badly as some other woods, and takes stains or varnish well. In places on river bottoms, the buttonwood is used for fencing, and on lands liable to overflowing is perhaps the best that can be made, as it cannot be washed away. It is made by planting young sycamores at the distance of a few feet from each other, and when they have attained the proper size, laying them down by the operation called *plashing*, at an angle of twenty or thirty degrees, and then by interweaving the branches this position is retained till by further growth the trees are fixed in this position. Such a fence is impervious to cattle, and it may be made on any grounds suitable to the growth of this tree. The buttonwood is easily raised from the seeds or balls, and when once growing can be perpetuated easily, as, like the chestnut, it throws up numerous shoots from the stools of the cut trees. Instances have been known, in which six or eight trees have grown from one stump to the height of thirty feet, and eight or ten inches in diameter, in about as many years.

The Butternut—(Juglans cathartica.)

The butternut tree in our forests grows to a considerable size and height, forming a light but durable timber, and when made into boards, for many purposes of cabinet work rivaling the kindred tree, the black walnut. It is a tree of rapid growth, and for posts or rails is exceeded in durability by few of our trees, the cedar and chestnut, perhaps, excepted. The butternut is of very certain growth, and requires little care when once it has vegetated and gained a few feet in height, as it is rarely attacked by mice or animals, and is not infested by insects. It is not, however, always to be procured, and as some would perhaps like to propagate the tree, we will state the manner in which we have succeeded in obtaining a supply.

We have a tree a short distance from the house in a piece of meadow land, which is a great bearer, and a few years since, having a supply of nuts on hand, the produce of the year was allowed to lie where it fell, and as the grass was not fed down, the nuts were soon buried in it, and remained so during the winter. Next spring a large part of them vegetated, and before the time of haying arrived were perhaps a foot in height. They were not disturbed, and the next spring some of the largest were transplanted. Nearly every one grew, and some of them now (the third year) are four or five feet in height. The second spring after their vegetation, as many as were desired were taken from under the tree, but standing in the grass as they did, their growth had but slightly advanced. About five hundred were transplanted into a small piece of ground used as a nursery, and nearly or quite every one have lived. It is presumed that any who choose, may vegetate as many as they please, by planting the fresh nut in a similar way, where the action of the frost would prepare it for sprouting in the spring. It may be remarked here, that the butternut, though a good looking tree, is an unsuitable one to plant in yards, or near dwellings, as the leaves possess coloring properties that are apt to stain clothes. The best places for this tree is to line road sides in the country, or the fences of meadows or pastures.

THE MULE.

Of all the hybrid animals nature seems capable of producing, there is none which is more valuable for its services to man than the mule, which, as well known, is the offspring of a jack and a mare. Owing to some cause not yet explained, hybrid animals are unable to perpetuate their species, and hence to increase their numbers, recourse must be had to the animals from which they were originally derived. The common mule is a very valuable animal, patient of fatigue, hardy, kept with much less cost than the horse, and for domestic purposes, or for the farm, is, by those who have used them, considered far superior.

The mule possesses the peculiar character of longevity in a greater degree than any domesticated animal, apparently uniting the age of both the beasts from which it springs, in itself. Thus, if we consider the natural age of the horse to be thirty years, and that of the ass forty years, the mule would live to sixty-five or seventy, and this age has been frequently attained by them. The mule is in great demand for the West Indies and South America, and is extensively bred for exportation to those countries. The mule is much less

liable to disease than the horse; and being capable of longer continued bodily exertion than either the horse or the ass, it is principally used for carrying burdens over the wastes and mountains of all countries. The mule is rather inclined to be vicious, and sometimes unruly, but by care when young, these propensities are checked, and they are the most docile and manageable of animals. It is objected against them, that their size is too small for farm or agricultural purposes; but this is owing to the parents, particularly the jack being of inferior size; and where good Spanish jacks, and large mares are used for breeding, this objection does not exist. It has been observed, that as a general rule, the mule is just about the medium between the size of the sire and the dam, of course animals large enough for any purpose requiring strength, endurance and economy, can be produced by proper care in breeding. The usual pace of the mule is about six or seven miles an hour, though some have been able to trot twelve miles in the same time. They are much used in the coal and iron works of Great Britain, and at the works of Colebrook Dale, several of these animals have lived and labored more than sixty years. The breeding of mules is better understood in Kentucky and Tennessee, than in perhaps any other part of the United States; and great numbers of this valuable stock are annually driven from those states. When Gov. Shelby, of Kentucky, died a few years since, at the settlement of his estate, the sale of his mules produced between fourteen and fifteen thousand dollars; several spans bringing, unless we have forgotten, four or five hundred dollars each. We are of the opinion, that our northern farmers would find the larger mules a valuable addition to their working cattle, as more economical in every respect.

Advantages of a Change of Seed.

That farmers add very much to their crops by occasional changes of seed, is most generally admitted, and the practice is followed to a great extent in the agriculture of all countries. It is found that seed from a cold climate, or soil, improves the crop on one that is warm; from a tenacious soil, on one that is friable and dry; and that seed from districts of the latter kind, in both these cases, adds to the value of the crop where the soil is cold and tenacious. In Scotland, the seed for the elevated and mountainous districts is brought as far as possible from the plains; an exchange that causes the crop on the hills to ripen earlier, and the influence is felt in the crops of several years. On the plains not only of Scotland, but of Holland and Germany, it is the custom to reverse this process, and obtain seed from more elevated regions, where the growth, though later, is more substantial.

In this state, it was formerly the custom in the more elevated parts of the counties of Madison, Onondaga, Cayuga, and still farther west, to obtain their seed wheat from the lower parts of those same counties, or other ones, and that seed was preferred which grew on the limestone zones of the district, or below. Wheat grown from such seed, would have a more vigorous growth, and would ripen some eight or ten days earlier than seed grown in the elevated parts of those counties; while in many parts of the lower country, seed from the more cold and tenacious soils of the upper parts of the counties, was sought, as more valuable on light and sandy soils, than that of their own production.

The cat-tail, or timothy grass, which originated in this country, is another curious instance of the effect of climate on seeds or plants produced from them. In England, the grass is at least half a month later in coming to maturity than with us; a difference to be attributed to the humid climate of that country, when compared with the higher temperature and drier air of our own.

So well is the fact, that seed from a more northern district will ripen earlier than from a more southern one, understood by our farmers, that corn from a southern climate is never brought from the south into the northern states for the purpose of planting; the great object here being to secure the earliest varieties, which can only be done by procuring seed from a still more northern region. Thus the north parts of New Hampshire and Maine, not only produce excellent corn, but varieties that will ripen sooner than any grown farther south.

The same rule would appear to hold good in the cultivation of forest or fruit trees, and the cones of the fir or pine from Riga are preferred by the numerous planters of these trees in Europe, to those grown in a more southern or temperate clime. Next to the seed from the Baltic, that produced in the mountainous districts of Switzerland is preferred.

It would appear, then, that the advantages resulting from changes of seed are nearly or quite universal, and should not be overlooked by the cultivator of the soil. In a climate favorable, or, as it is sometimes called, natural to the growth of any particular plant, there can be no doubt that careful attention to the selection of seed may preserve it in its best state, or even cause improvements in the quality or quantity, as has been done by Le Conteur with wheat, and by Mr. Baden with corn. The deterioration, however, which is almost sure to ensue from long cultivation on the soils of the same quality, finds the easiest and most effectual change from a change of seed from one district to another. Continual planting of the cereal grains in any soil, would seem after a time to deprive the seeds of their proper proportions of the earths, which modern philosophy has demonstrated is necessary to the production of that active agency, without which vegetation cannot exist, the electro-magnetic current. That most varieties of wheats, or the same kinds of wheat grown on essentially different soils, differ in the proportion of lime, silex and alumine, contained in ashes made from the berry of the wheat, is shown by the analysis of various specimens; and it cannot be considered irrational to suppose, that a change of seed from one locality to another, where the soil is different, may restore that balance or harmony of proportion in the ingredients, essential to the perfection of the plant and the grain.

Prof. Bonn, of Leige, from a great number of experiments made with the greatest care and precision, has deduced a law which seems to have great influence in vegetation, and must be of interest to the cultivator, to wit:

"Every thing that favors the disproportionate growth of vegetables, opposes or retards their propagation or formation of fruit or seeds; and vice versa, the formation of fruit is hastened and forwarded at all times when exterior circumstances prevent the full development, and disproportionate growth of the stalk."

In the application of this law we shall find that those plants principally cultivated for their grain, and which of course do not require an unusual development of their stalk, need little or no manure, while manuring produces the best effects on plants from which we wish to obtain large roots, stalks or leaves. Thus, a heavy manuring applied directly to a crop of spring wheat or barley, gives such a growth of straw, that the berry does not ripen as early or as perfectly as if the manure had been applied to a root crop, or to corn, both of which require the rapid development fresh manure imparts to vegetables, but which is fatal to the cereal plants. Changing seeds, as we have seen, may give an increased activity and vitality to plants, and thus increase the crop without the danger that sometimes results from excessive applications of manures.

The Middle Course.

In all kinds of business and occupations, there are some who are so fearful of trying any thing new, that they never discover an improvement, and are so tardy in adopting one discovered by another, that their convenience and interest suffer materially from the neglect. On the other hand, there are others who can never follow an old method, though approved by experience as safe and good, but must always have a new way, and will enter headlong into every new project with little calculation as to the probable result.

To these *extremes* farmers are liable in common with those of other occupations. But there is a *middle course* which is the true path of enterprise, profit, and usefulness. It repudiates that foolish fear which will not try any new thing because it is new, though approved by reason and science—or that wild impatience which, deaf to reason, will not follow an old method because it is old, though attested good by long experience. It is not too fickle to follow or too fearful to lead. It is not too slothful to apply knowledge, or too conceited to learn more. Though it chooses not to lose sight of the old path, it is not afraid to try the new *when it looks to be better than the old.—Maine Farmer.*

From the Farmers' Register.

Reaping Machine.

To the Editor of the Farmers' Register.

I send, herewith, two papers containing articles respecting Hussey's wheat reaper. One of them (the report of the committee which tried it near Philadelphia) is so full and satisfactory, that I deem any further description of it, by me, as requested, even if I were competent, as altogether unnecessary. From my experience in its use, of three years, I am of opinion they have not said in its favor a single word too much.

SAML. HAMBLETON.

Report of a Committee of the Philadelphia Agricultural Society, on Hussey's Reaping Machine.

The committee appointed at the last meeting to superintend the operation of Hussey's Reaping Machine, beg leave to report:

That they discharged the duty of their appointment on the day following the same. They met for the purpose on the farm of Mr. John Fox, in Oxford township, where the machine was put in operation in a piece of several acres of heavy wheat, considerably lodged—and contrary to the expectations of the committee, it performed remarkably well.

The machine requires two horses to draw it, a boy to drive them, and a man to push off the grain. It is not material whether the speed be a walk or a slow trot, though a walk, where the grain stands tolerably fair, is to be preferred. A trot is sometimes necessary where the grain is much lodged, or a strong wind drives in the direction of the machine. It operates very satisfactorily in grain so much fallen as to be entirely beyond the ability of the cradle; and the grain is generally laid fully as regularly as by the cradle, with the advantage on the part of the machine, that it is laid in heaps ready for binding, thereby saving much labor in thin crops, and rendering a rake unnecessary. So perfect did the machine work, even in grain considerably lodged, and in which a cradle could scarcely have been used at all, that not a stalk was left standing, while the stubble presented one uniform height of about seven inches throughout the field. The loss, too, by this mode of harvesting, is greatly reduced. The machine operates somewhat on the principle of the common shears, requiring nothing of the momentum of the cradle; and the only jarring attending it is from the weight of the grain falling on a smooth surface. The wheat cut on the present occasion, was dead ripe, having been standing two weeks longer than necessary, and yet scarcely a grain could be found shattered out.

It is estimated by the committee, that the ordinary performance of this machine is from ten to twelve acres per day; although they fully believe that, on an emergency, it could accomplish twice this amount of work. In confirmation of this, they would state, that it cut, on this occasion, six hundred and thirty square yards in two minutes, doing its work in the most perfect manner. It requires from six to ten persons, according to the state of the crop, to bind up or remove the grain as fast as cut, which it is necessary should be done to prevent it from being crushed by the horses and wheels of the machine, on the succeeding through. The machine is not liable to get easily out of order; and the cutters, although they are very readily sharpened, seldom require it, as more than one hundred acres of grain, according to the statement of Mr. Hussey, had been cut by those attached to this machine, prior to the present occasion.

Upon the whole, the machine did its work remarkably well, where it was possible for any thing except the naked scythe to penetrate—and so far as the committee could perceive, to the entire satisfaction of a number of intelligent farmers present on the occasion, most of whom were, at first, not a little skeptical of its utility.

Your committee would say, in conclusion, that they believe the reaping machine of Mr. Hussey, to be an advantageous substitute for the present mode of cutting grain on large farms, or where two or three adjoining farmers of the ordinary amount of land in this vicinity unite in using it—the price of one being one hundred and fifty dollars. We would therefore recommend it to the attention of this society, and the agricultural community generally.

K. SMITH,
JOHN FOX,
JACOB SHALLCROSS,
P. R. FREAS.

Talbot, Md. Sept. 14, 1839.

A TRUTH.—The way to make a sober man a drunkard, is to give him a wife who is always scolding.

From the Poughkeepsie Telegraph.

Dutchess County Agricultural Society.

Pursuant to adjournment, a meeting was held at the the Hotel of A. S. Hatch & Son, on Wednesday evening, Nov. 13th, for the purpose of hearing the report of the committee appointed at the former meeting. T. L. DAVIES, Esq. was called to the chair, and THEODORE ALLEN, Esq. appointed secretary. The following report was read and accepted:

REPORT.

Gentlemen—The committee appointed at your former meeting, have found some difficulty in making up their minds as to what was expected from them, and to what extent their labors should be carried, but have finally determined it was merely intended they should collect all the necessary information as to the plans tried by different institutions of celebrity, which had been formed for the purpose of improving the Agricultural community—and by comparing their constitutions, choose those parts from all or either, as in their judgment would be most suitable for an institution in this county, and which from practice, has been found good.

We at first intended to have given an account of the rise and progress of Agricultural Societies generally, and of their incalculable advantage to the Farming interest wherever they have been sustained. But upon further consideration, we deem that duty will be more properly performed by a Special Committee, which we should think it advisable for you to appoint, and whose duty it shall be to address our fellow Farmers, and endeavor to impress upon their minds the benefits which flow to them and their county, from a well organized Society. And it is certainly remarkable that any argument should be necessary to induce people to believe a thing of such settled character, or that any county, after experiencing the benefits of a society for several years, should suffer it to fall from want of sufficient patronage, as soon as the bounty of the state was withdrawn. Three Agricultural Societies have been in successful operation in this county, at different periods. One in the year 1806, of which Dr. Bard was President; one in 1814, a joint society for Dutchess and Columbia; and another in 1819, which was organized soon after the law had been passed by the state to allow $400 per annum, to this county for six years, from the public funds, to be applied to the promotion of agriculture. These societies, after lasting a few years, failed—yet, for the short time they were in operation, they were productive of much good. It is to be hoped that the present attempt will be more durable. In a county like ours, proverbial for the skill and industry of its farmers, an immense mass of agricultural knowledge must be diffused; and the advantage to be derived from an association of this kind, is not to be summed up in the amount of premiums that may be obtained by one or other of its members, but to the drawing together in one focus, the varied knowledge and skill now so widely scattered, and in comparing the different manner in which the same farming operations are carried on; for what may be well known as a great improvement in some parts of the county, other parts may be entirely ignorant of. though they in turn may possess a knowledge on other subjects, which needs only to be known to be practised.

Another great advantage will be in the shows or fairs, at which a great variety of the best stock, of course, will be collected together, and comparisons may, and will be instituted on the spot, as to the appearance and value of different breeds, of which little may now be known by farmers generally. The Berkshire Agricultural Society in Massachusetts is an apt illustration of this subject. This Society was instituted in 1811, and has been constantly extending its sphere of usefulness, until now its fame is spread through the whole union; yet in 1823 it only numbered 168 members.

Your committee, immediately upon our appointment, addressed a letter to the president of the Berkshire Society, requesting a copy of their constitution and by-laws, which letter we fear has miscarried, as no answer has been received. We also addressed a letter to Caleb N. Bement, Esq. of Albany, treasurer of the State Agricultural Society, who, very politely, has furnished us with a set of by-laws, which, with some modifications, we think may be well adapted for a society of this kind. We have also endeavored to obtain information from all other sources in our power, and have considered what the yearly subscription should be, to constitute a member, and have finally determined upon *two dollars*.

We have examined the premium lists of different societies, and find them to range from $300 to $900. It will be necessary for us to raise at least $600 in order to cover all expenses of shows, premiums, printing, &c. &c. which will require 300—paying members at $2 00 per annum—unless the state can be induced to lend a helping hand. A bill was reported in the assembly of the state, in February, 1838, by L. F. Allen, Esq. from the committee on agriculture, which recommended an appropriation for agricultural improvement for 5 years, which bill was never acted upon: the sum named for this county was five hundred and twenty-one dollars.

We trust the next session will not pass without something being done on the subject; and should deem it advisable to appoint a committee to get up a petition, and circulate the same among the farmers for signatures.

Your committee, in conclusion, think it advisable to have committees appointed for each town in the county, whose duty it shall be to obtain members, collect dues, and forward the interests of the society as much as possible. The following constitution is recommended by the committee, all of which is respectfully submitted.

Poughkeepsie, Nov. 13th, 1839.

E. K. JAMES,
FREEBORN GARRETTSON,
WILLIAM A. DAVIES,
EDMUND F. GRANT,
GEORGE M. HATCH,
} *Committee.*

The constitution was then read, and after several amendments, adopted unanimously as follows:

CONSTITUTION OF THE DUTCHESS COUNTY AGRICULTURAL SOCIETY.

Sec. 1. This society shall be called "The Dutchess County Agricultural Society."

Sec. 2. The object of this society shall be to advance agriculture in this county.

Sec. 3. Every person desirous of connecting himself with this society shall pay to the treasurer — dollars, at the time of his becoming a member, and — dollars annually thereafter, on the first Wednesday in October, during his continuance as a member. Any member wishing to withdraw from the society, must pay all dues, and give a written notice to the recording secretary of his intention.

Sec 4. The officers of the society shall consist of a President, four Vice Presidents, a Recording Secretary, a Corresponding Secretery, a Treasurer, and an Executive Committee, consisting of one member from each town in the county—all of whom shall be elected by ballot on the first Wednesday in October, annually, and shall continue in office one year, or until others shall be chosen in their stead.

Sec. 5. There shall be an annual meeting on the 1st Wednesday in October, at Poughkeepsie, (or at such places as the Board of Managers shall direct) for the purpose of holding the regular fair and exhibition of domestic animals—manufactures and articles, the produce of the farm and garden.

Fifteen members shall constitute a quorum, at all meetings of the society.

Sec. 6. The officers of the society, five of whom shall form a quorum, shall constitute a Board of Managers, for the general administration of the affairs of the society. They shall have full power to enact such by-laws as may be deemed expedient to appropriate the funds of the society to the proper objects of the institution; to appoint committees; to convene special meetings of the society; to hold the annual "exhibitions," and make all arrangements necessary therefor; to award such premiums as may be offered by the society, and determine all matters connected therewith; to take charge of and distribute, plants, seeds, books, &c. or whatever may be transmitted to the society; and to correct, arrange and publish addresses and other communications, together with the proceedings of the society, at such time and in such form, as they shall deem best calculated to promote the objects of the society.

It shall be their duty to appoint yearly, two members from each town, who with the member of the executive committee from the same town as chairman, shall be standing committees to superintend the concerns of the society in their respective towns, whose correspondence shall be addressed to the corresponding secretary, and who may be requested by the treasurer to collect money due the society in their respective towns.

Sec. 7. The president, or in his absence, one of the vice presidents, shall preside at all meetings of the board of managers, or the society, and at all exhibitions or fairs held by the society.

Sec. 8. The corresponding secretary shall, under the direction of the board of managers, receive and answer all communications addressed to the society or any of its officers, and perform such other duties as may from time to time be assigned to him by the board of managers.

Sec. 9. The recording secretary shall keep a record of the proceedings of the society; he shall also be recording secretary of the board of managers, keep a record of their transactions, and perform such other duties as may be assigned to him from time to time by the board of managers.

Sec. 10. The treasurer shall receive all sums due the society, and all donations in money made for its benefit, and disburse them only on the orders of the president. He shall keep an account of his receipts and disbursements, and report the same annually to the board of managers, and oftener if required. He shall execute a bond to the society for the faithful performance of his duties, in such penalty and with such securities as the board of managers shall require.

Sec. 11. The board of managers shall have full power to fill all vacancies that may occur, by death resignation or otherwise, among the officers of the society, and the persons so appointed shall hold their respective offices, until the next annual meeting of the society, or until others are elected in their stead.

Sec. 12. No persons but such as are members of the society, and who continue to pay their annual dues, shall be permitted to compete for premiums.

Sec. 13. This constitution may be altered or amended by a vote of two thirds of the members present, at any stated meeting of the society.

On motion, Resolved, That a committee be appointed in each town to obtain members.

On motion, Resolved, That the Poughkeepsie committee prepare the necessary subscription papers, etc., and transmit them to other committees.

On motion, Resolved, That this meeting adjourn to the first Tuesday in February next.*

T. L. DAVIES, Chairman.

THEODORE ALLEN, Sec'y.

From the Cultivator.

A Bird Story.

Milton, Ulster Co. N. Y. July, 1839.

FRIEND BUEL.—I would not have ventured to forward the following statement, were it not that the narrator of it, Edward Hallock, of the firm of Wm. Hallock & Brother, of Milton, Ulster, co. is known to thee, and known to be of unquestionable veracity. I have heard him before express his conviction, that if birds were protected and cherished by farmers and others, we should never be subjected to the loss of corn or other crops by grubs; and that obnoxious insects would be sensibly diminished. There is a small kind of bird (the males nearly black, the females brown) that is noted for being around and following cattle in the field, as in the case I am about to detail. Mr. H. says, "on the 26th of the present month, I was plowing for turneps, myself with one team, my son with another; and observing that we were followed by a flock of the above little birds, I took it into my head to notice their motions, to ascertain what was the attraction, when I perceived that their object was grubs. We plowed up plenty of a small white, and large brown or gray grub, as well as some in a chrysalis state, and angle worms; all of them, excepting angle worm, appeared to be acceptable to them; and as the sequel will show, they were capable of devouring large quantities. I should think that one would make way with at least 100 per day. I cautioned my son against making any motion towards noticing them, in any way to intimidate them; as I found they grew more and more bold in their honest avocation, and as the land diminished in width, they would remain in the opposite furrow when not more than three or four feet distant. At length my son spoke cautiously, and said there was one on his plow beam. I then stopped the teams and told the boy to pick up a grub and throw it to to the bird that had distinguished itself for its tameness. He did so; and the bird immediately seized it. Encouraged by this, I told him to pick out the next white one and hold it out in his fingers near the ground; crawling down, he did so, and the bird came and picked it out of his fingers! Afterwards he stood up and held out one, and the bird lighted on his hand and picked out the worm. This was repeated until it lighted on my own hand; I raised it up and applied my cheek to its wing without frightening it away. The next day he was not slow in finding us, and practised the same familiarity, in presence of James Sherman, William Hallock, and others of the neighbors; it came into the corn field where the boys were weeding corn, and actually, without any special attraction, perched upon the head of one of the boys; it continued these visits until one of the boys in an adjoining field, could not repress his inclination to seize and hold it. This made him more wary, but he gradually recovered his confidence." I communicate these facts in the hope that they may contribute to produce an examination into the subject, of how far it would tend to the agricultural interests, to fall upon some method to tame and familiarize small birds, instead of frightening, maiming, or destroying them.

E. HULL.

Apples

Should be kept in a cool place and not put in the cellar, until severe weather approaches. An open shed out of the sun is a suitable place. If put in a warm cellar early, they are liable to sweat and heat, and then they soon begin to rot.—*Ib.*

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* A majority of the members present at the meeting in February, will determine the amount of annual subscription, which is not to be more than three dollars, and not less than one.

From the Farmer's Monthly Visitor.

A Pattern Farming Township.

Until within a few days the editor had never visited the town of Rye in the county of Rockingham. This town is situated next southwest from Portsmouth, stretching on the sea-shore six miles, and is of an average width of two miles, being one third the size of a common six mile square township. A considerable portion of its superfices is the sand beach of the sea. Its soil now in cultivation was originally hard beyond that of the rocky soil of the interior, with a pan approaching near the surface like the face of the rock itself, or else it was swamp and morass. Thirty and forty years ago the inhabitants pursued fishing as their principal occupation; and the larger portion of them were poor; it is also said that many of the fisherman, being intemperate, left their families almost in a state of destitution. The change that has since gone over them is wonderful. There is not now probably in the state a more industrious and moral community than the twelve to fifteen hundred inhabitants of Rye; and although there is no community of farmers in the country more frugal and economical, scarcely an individual among them being unwilling to part with a fourpence-ha'penny without the assurance that it will bring back a ninepence, yet the examples of generous charity among them are such as are worthy of imitation from those who part with their money with much less reluctance. Most of the owners of farms with their sons do the work upon the farms; if one of them is taken sick and unable to do his work in a busy season, enough of his neighbors leave their own work for one or more days to assist him, and his haying or his hoeing is performed at the proper season, "without money and without price."

The superabundant rocks in this little township have for the most part been converted into excellent permanent walls, partitioning out the grounds into convenient fields of from two to twelve acres. We met in the town the three selectmen or "fathers of the town," who were in session to close up the business of the year. These gentlemen were a true specimen of the hard hands and intelligent, honest faces that are characteristic of the tillers of our soil. With them, and the excellent friend to whose kindness we were indebted for their visit, we ascended the steeple of the large congregational church, which has been erected more than one hundred years, and from the top had a view of the almost countless stone-wall partitions, and of fields upon which piles of manure in preparation for the coming season had already been placed. The sea, the Isles of Shoals, on one of which is the White Island light, the Whale's Back and the New Castle lights, further on the steeples of Portsmouth, and in a transverse direction the harbor of Rye, being a bay formed as the estuary or mouth of a small creek running through the town were visible to the naked eye.

From the observations made, as well as from information, we do not doubt that this little town of Rye turns out more value in the production and growth of the soil than any other town of the state. The farmers here seem to have studied in their own school of experience, which has taught them the best method of cultivating their ground. Hundreds and sometimes thousands of ox-loads of green sea-weed are annually thrown upon the beach; every storm with the wind blowing directly upon the coast brings this along; and there is competition among them which shall secure the most of this article. It is of itself the very first rate of manure, and is either spread upon the surface before plowing, or else upon the sward where grass is to be mowed. In addition to this sea weed or kelp, the farmers of this town within the last few years, have commenced the ditching and cultivation of swamps containing a deep vegetable mold, drawing out the matter taken from these ditches in the fall or winter to be spread over the ground along with the sea weed. This rich black mould is thrown in heaps at convenient distances, at the rate of a hundred stout cart loads to the acre; the vegetable mould under the operation of severe frost, swells and pulvarizes like slacked lime. With this and the vegetable weed from the sea, and in some instances on low ground with heaps of common stone gravel, such as hard roads are made of, the largest crops are obtained. The corn is larger than that raised in the interior on the best grounds; great oats follow as a succeeding crop to the corn. But potatoes for shipping are the great staple; these the last year, carted directly from the field, sold at forty cents the bushel. In a good season, three and four hundred bushels are yielded to the acre. Some of the farmers raise three and four thousand bushels each. Most of the farms are very small in compass; thirty acres would be deemed a large farm; and it has been common for a farm of thirty acres to be divided among two or more sons of the same family, and all of them soon increase their products so that each partition will yield more than all of them did together.

In the country we have seen no such cattle as we saw at Rye and the adjoining town of Hampton. Real working oxen yoked in the teams seemed to be fatter than the fattest of those we are wont to see driven through Concord from the north and west part of the state, and from Vermont for the Brighton market. The farmers of Rye are certainly more industrious than many of the farther interior. They are working their teams constantly in the winter, preparing as well their grounds for cultivation by carting manure, as procuring their annual stock of fuel. In the article of wood and timber the people on the seaboard are much better supplied than they were fifty years ago. The white pine is more usually than any other wood used as fuel; this is of the second growth, the trees having attained almost the size of some of the original pines in the space of a few years. The but logs up to the knotty parts are saved to be sawed into boards and plank, or for hewn timber, and the limbs above are cut and split, making good fire-wood for the stove when they become seasoned. The pines are preserved with all the care of a garden orchard, as are the hard-wood trees in uncultivated swamps; the growth of these will yield a great annual profit on a high price paid for the land.

The farmers with a small amount of land usually keep at least two yokes of oxen, and turn them off very fat at the season when good beef for the market will bring the best price, supplying their place oftener with other oxen furnished by the country than by young cattle of their own raising. Considerable pasturage for cattle is either owned or hired out of town, the land being taken up with more favorable cultivation.

The cultivated lands of this town sell from one to two hundred dollars the acre, and sometimes even beyond that price. The inhabitants of the town change less than is usual in the towns farther interior. Seldom does the property pass out of the family. A vast deal more in value is annually produced in the town, than is expended in the town, so that the people necessarily must be growing rich; the annual increase of the capacity of the land from its improved cultivation is a great increase of the wealth of the town.

Could the farmers of all our towns realize the extent of the advantage gained by so cultivating their ground as to make every acre produce two or three for one—could they witness what has beed done by the industrious farmers of Rye—few of them would fail to make efforts to elevate themselves, and their calling, in that easiest method which human ingenuity can devise.

From the Franklin Farmer.

The next Census—Statistics of Productive Industry.

We thank Gen. McCalla, as well for his interesting communication, as for making our paper the medium of conveying it to the public. We have, for two years, been urging upon the state government, the propriety of adopting some measure for procuring the statistics of production, consumption, exports and imports, of this state. Much of the information sought by such an act, will be obtained in the execution of the act of congress, to take the next census; and it will prove of great value to the legislators of the state, if, in legislating upon the interest of the country, they would prefer the light of ascertained *facts, to the delusions* of conjecture.

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Frankfort, Nov. 13th, 1839.

To the Editor of the Franklin Farmer:

Dear Sir—I received on yesterday, your paper of the 9th inst. and examined the letter of Mr. Noe, to which you referred me, in which he suggests the propriety of obtaining information upon the subject of the various kinds of stock in Kentucky, by the aid of those persons who may be appointed to take the next census. Your readers generally will no doubt be pleased to learn, that the instructions from the secretary of state, already received, for the direction of the census assistants, provides for the very subjects embraced in the letter, besides many other equally interesting to the public. For some time past I have been reflecting on the propriety of publishing a synopsis of those instructions, with a view to the facilitating the taking of the census, and insuring a greater accuracy in the work. Congress and the Executive are both desirous to derive as much advantage as possible from it, in the amassing a large fund of useful statistical information, calculated to exhibit our national resources, and the relative importance of the various branches of industry and production. To be useful, it must be accurate. If it shall not be, it will deceive and mislead.

Hoping that you may find it convenient to give it a place in your paper, and that every editor in the state may deem it of sufficient interest to his readers, to copy it, I have prepared the following abstract from those instructions, in as brief a form as possible.

In the first place, the enumeration of *persons* is to be made as upon the first day of June, 1840, and in addition to the classes usually enumerated, includes pensioners of the United States, the deaf and dumb, blind, insane, and idiots; also what number of each family was employed in mining operations, agriculture, commerce, manufactures and trades, navigation of the ocean canals, lakes or rivers, learned professions and engineers.

The interrogatories which relate to the statistics of the country embrace the following subjects, viz: mines of the various metals—coal—domestic salt—granite, marble, &c.—agriculture—horticulture—commerce—fisheries—products of the forest—manufactures of the following branches, viz: machinery—hardware—cutlery, &c.—cannon and small arms—precious metals—also copper, brass, tin, etc.—granite, and all other stone—bricks and lime—wool—cotton—silk—flax—mixed goods—tobacco—hats, caps, bonnets, &c.; leather, tanneries, saddlery, shoes; soap and candles; liquors distilled and fermented; powder—drugs and medicines, paints and dye stuffs, glass, earthen ware and stone ware; sugar refineries &c.; paper, printing, binding, cordage, musical instruments, carriages, wagons, &c.; mills, ships, furniture, houses, and *all othor manufactures* and mechanic arts not enumerated—which in this state will include the important article of cotton bagging. On every one of the subjects information will be asked, of the *quantity* raised or manufactured, and its value; the *number of persons* employed, and the *amount of capital* employed.

It is earnestly requested that every person who will be expected to give answers in the progress of the work, will prepare to render a true account on all these subjects within the year 1839. The estimate to be made is of the value of the produce of all the branches of industry for this year, and not including any part of 1840.

As agriculture is the most important item in the list, I will give the particulars included under that title, that timely preparation may be made to give the necessary information. The questions are as follows: "What is the number of your horses and mules? How many neat cattle have you? How many swine and sheep? What is the estimated value of your poultry of all kinds? How many bushels of wheat did you grow in 1839? How many bushels of barley, of oats, of rye, of buckwheat, of Indian corn? How many pounds of wool, of hops, of wax? How many bushels of potatoes? How many tons of hay, of hemp and flax? How many pounds of tobacco, of rice, of cotton, of silk cocoons, of sugar? How many cords of wood have you sold? What is the production of your dairy, of your orchard? How many gallons of wine have you made? What is the value of your home made or family goods?"

It will be perceived that the list embraces almost, if not entirely, every branch of business requiring capital and requires information as to the amount employed, and the *alue* of the productions also in most cases; and where that is omitted, the *quantity* is called for.

Hoping that these suggestions may be useful, in drawing the attention of our citizens generally, to the importance of making a timely preparation, at the conclusisn of the year's business, for giving a correct statement of its amount, when they shall be called on, next year, and that they may thereby contribute their portion to the mass of useful knowledge which the government is so desirous to procure for the benefit of all.

I remain respectfully yours, &c.

Jno. M. McCalla.

From Capt. Marryatt's Dairy.

Prices of Stock in Kentucky.

Of the cattle show of Lexington, (Kentucky,) the fourth day was for the exhibition of jackasses of 2 years and 1 year, and for foals and jennies also; this sight was to me one of peculiar interest. Accustomed as we are in England to value a jackass at thirty shillings, we look down upon them with contempt; but here the case is reversed; you look at them with surprise and admiration. Several were shown standing fifteen hands high, with head and ears in proportion; the breed has been obtained from the Maltese jackass, crossed by those of Spain and the south of France. Those imported seldom average more than fourteen hands high; but the Kentuckians, by great attention and care, have raised them up to fifteen hands, and sometimes even to sixteen. But the price paid for these splendid animals, for such they really were, will prove how much they are in request. Warrior, a jackass, sold for $5,000, upwards of £1,000 sterling. Half of another jackass, Benjamin by name, was sold for $2,500. At the show, I asked a gentleman what he wanted for a very beautiful female ass, only one year old; he said that he could have $1,000, £250, for her, but that he had refused that sum. For a two year old jack, shown during the exhibition, they asked $3,000, more than £600. I never felt such respect for donkeys before; but the fact is, that mule-breeding is so lucrative, that there is no price which a very large donkey will not command. I afterwards went to a cattle sale a few miles out of the town. Don Juan, a two year old bull, Durham breed, fetched $1,075; an improved Durham cow, with her calf, $985. Before I arrived, a bull and cow fetched about $1,300, each of them about £280. The cause of this is, that the demand for this stock,

now that the western states are filling up, becomes so great, that they cannot be produced fast enough. Mr. Clay, who resides near Lexington, is one of the best breeders in the state, which is much indebted to him for the fine stock which he has imported, and I quote the prices. Yearling bull, $1,000; do. heifer, $1,500. Cows of full Durham blood, but bred in Kentucky, $1,245; do. $1,235; Imported cow and calf, $2,100. It must be considered that although a good Durham cow will not cost more than twenty guineas perhaps in England, the expenses of transport are very great, and they will generally stand in, to the importers, about $600, before they arrive at the state of Kentucky.

From the Maine Cultivator.

Keep the House Warm.

Verily, it seems to us as if some people had no nerves. On the whole, it may be no great blessing for people to be nervously diseased; but still we like to see persons nervous enough to be sensible of inconveniencee, so as to make them attend to the means of their own comfort. Cold weather is approaching, and it becomes all good housekeepers to economize in fuel, and at the same time secure their own comfort as far as possible, by making their rooms tight and keeping out the cold air; and yet many of our acquaintances can, with as great insensibilty as an iron post, pass into their houses, stores or shops, without thinking to shut the doors behind them, and take their seats at the fire place, with a rude north wester, breathing his chilly blast upon their backs. And there they will sit and turn to warm each side alternately, complaining of the severities of a northern winter, and forming resolutions to clear out another year in season to get rid of cold weather.

Travelling up the country the other day, into a region where the snow lies four inches deep on the earth, we called at the house of a person who stands high enough on the list of respectables to be a representative to the legislature, for the purpose of warming our benumbed feet and fingers. The outside door was wide open, swinging upon its creaking hinges, per force of the northern blasts, which it looked full in the face. The next door—that leading into the kitchen—for there was a fire no where else—stood ajar, with one pannel demolished, and a crack at the bottom large enough to admit a small kitten. Where no friendly hats filled the broken panes of glass, the wind was driving in, strong enough to turn a windmill. In the fire place were a few ends of long, half rotted hemlock sticks, resting upon stones that answered the purpose of andirons; the table, covered with grease, or slush, that might be scraped off with a hoe, stood in the middle of the room, with divers corresponding dishes thereupon, though it was two hours after the dining hour. Before the fire place stood half a dozen urchins, with hair lank and uncombed, whose faces gave evidence that their father's notions of manuring the face of the earth, had reached even the faces of his children. We strove to crowd into a vacant place between the blessed *bairns;* one mounted our right knee; a second jumped astride our left; a third climbed the back of chair; a fourth paraded himself directly in our front, to command our physiognomy to advantage; a fifth quarrelled with the rest for a chance at the stranger; while the "sweet babe" was allowed to dangle the watch chain. The father was in joy to see us—too much so to enable him to consider our convenience; and the mother insisted that we should sit in the parlor, where, though there was no fire, the *room* was a little more tidy. We protested that all we wanted was the fire; and we would take some other opportunity, when the weather should be warm, to visit the parlor, and take delight in the pictures which her promising children had drawn with ink and green paint. And there we sat, completely assaulted with urchins on all sides, and worse than all, entertained with a long dish of politics from the representative, who abounded in all the exploded catch words of his party. He had done and meant still to do great things in the legislature for the *people*, and as long as life lasted he meant to be devoted to their interests. We heard him awhile, till finding ourself growing colder than we were before we entered his abode of comfort, we excused ourself on the score of our hurry, and resumed our seat in the carriage to warm ourself on the way by the sun.

There are many people in our country who live in this manner. They are excellent friends of the *public;* better friends than they are of *themselves*. Such men are the ones to make good and wholesome laws for the *dear people*.

Now the cold weather is approaching—if you are *not* a representative—see to it, that you make your house comfortable. Bank it up deep with earth, to keep the cold air from circulating under it. Make the doors tight and stop the windows with sound glass. Let the cracks about house all be filled; and *shut the door*. For mercy's sake set the example yourselves and teach the children, to *shut the door*. If you cannot command your house without, attach a weight with a pulley to each door, that shall oblige it to shut itself. One stick of good wood is lost by every five minutes's opening of a door.

From the Yankee Farmer.

Improvement in Stock.

It is well known by intelligent farmers that great improvements may be made in stock, and they are giving their attention to the business. Every farmer should attend to it, for it is a subject of the highest importance, and one which has generally been very much neglected. The means of improvement are within the reach of every one, even those of the humblest condition. Though it may require more capital than most farmers can spare for that purpose, to purchase the expensive improved breeds that are imported, yet a great improvement may be made in our native breeds of stock, or a great advantage gained by purchasing those already improved, some of which may be had at a moderate price in almost every part of the country.

Every farmer in selecting the stock which he intends to winter, should examine them critically, and if they are not of good forms and size, if his ox kind be not tough and hardy, capable of performing much labor with common fare, and his cows good milkers, he should look around and purchase better, or exchange them for some that are superior which are intended for slaughter. If a man has stock to sell, he should by all means first select the best for keeping, though the poorer animals sell for much less.

We have heard drovers observe that farmers have offered them any lambs in their flocks, setting the price upon the handsomest and best for keeping—those of the largest and finest fleeces and best forms—only about one third higher than the poorest part of the flock, with ugly forms and small coarse fleeces. The difference in the price was frequently so small that the drovers preferred the large lambs for their use, and in this manner even fine flocks of the farmer would soon be reduced to a worthless race. If the drover could give 50 per cent, more for the best lambs, they were surely worth 100 or 200 per cent. more to the farmer for keeing; as by selling of the best the whole flock would soon greatly depreciate the value.

A farmer may sell his best apples, his fatest beef, pork, mutton, and poultry, his best butter and cheese, and other articles which command a good price on account of their superiority, without disadvantage, if he have good wholesome provision for his own consumption. Sometimes when the articles are to be carried far to a market, there may be a decided advantage in selling the best, as the purchaser may be willing to pay high to gratify his taste and please his fancy; while other articles, not so fine and rich, may be wholesome and nutritious, and of almost equal value to the consumer. The sale of such produce does not affect future crops.

But when a farmer sells his finest animals, he suffers a loss that is lasting, he feels it every year in the depreciation of his stock, as it affords less profit while the expense of keeping is about the same. A farmer should no more think of selling off his best animals, than he should of selling his large handsome ears of traced corn, carefully selected in the field, and planting little nubbins such as usually fall to the lot of the pigs. In animals as well as vegetables, propagate from the best, for "like produces like." You cannot expect to gather figs from thistles.

From the Yankee Farmer.

Planting Peach Plums and Cherry Stones.

The sooner these stones are planted after taken from the meat the better, for the stones are in two parts which are closely cemented together, and if they become dry the cement is hardened so that the stones will not open so readily. There is an oily substance in the cement which is extracted by the earth and then the two parts fall assunder.

Some persons suppose that frost is necessary to open the stones and that they will not open without this agent, but though frost assists in opening the stones it is not absolutely necessary to effect this process as we have observed from experiments.

We planted about 1000 peach stones, by laying them in fine garden soil, so near as to tough each other, and then laid about one inch of fine earth on them; immediately after they were planted and before the ground froze in the last, there came 8 or 10 inches of snow, which continued all winter, and other snows came before the cold was very severe. In consequence of this early snow the ground remained unfrozen through winter. This was not only evident from the circumstances, but from the observations of many persons whose business led them to note the fact.

In the spring, while the snow remained 6 or 8 inches deep, we dug it off and examined the peach stones; the most of them were craked and sprouted, we soon planted them out and they grew well, we cracked the others and planted them and they grew well too. In the spring there was no frost in the ground and it was evident that it had not been frozen during the winter.

As a caution we would name that a mouse took up his winter quarters in a neighboring heap of stones, and helped himself rather liberally to the seeds.

Most peach stones planted in the fall will crack by spring, but when we consider it important that all should grow, we prefer putting them down as above and cracking those that are not open when we plant them in the spring, or marking the place where we plant them by sticks, or drawing a line, so that we can find and crack them in the spring, if this operation has not been effected by nature.

From the American Silk-Grower.

Silk and Mulberry in New-York State.

ITHACA, Tompkins Co. New-York.

GIDEON B. SMITH, ESQ.

Dear Sir:—In reply to my letter to you some time since, ordering the Journal of the American Silk Society, you requested me to inform you how the morus multicaulis succeed in this region. I have delayed answering until I could give you satisfactory information on that head, from my own knowledge, and at the same time communicate some other facts of an interesting nature to all persons engaged in the production of silk.

The growth of the multicaulis is generally attended to at present for profit—all culturists are anxious to obtain the greatest size of plants, and of course, manure highly, and cultivate upon the richest ground, and consequently produce much wood, which is not mature enough to stand our winters. We have, however, some trees in this country which were planted three years since, and suffered to take their own course, which are now in fine health and vigor, having stood three winters in this climate unharmed; the plants were from buds planted in June, 1836; the next winter the tops were nearly all destroyed to the ground; the second, the extreme tops were injured; the last, the owner, Mr. Willman, of the town of Danby, distant seven miles from this place, cut off the side branches and placed them in dry sand in his cellar, the eyes or buds of which were uncovered and eaten out by the mice, notwithstanding which, as he informs me, the buds when planted, actually put out shoots and were growing a few weeks since. The parent tree is still in good condition, and promises to "live a thousand years." I can cite several other cases in this county, and many others in the vicinity of the small lakes. Wm. Scott, Esq. of Livingston county, has multicaulis planted in the fall of 1835, from one of which he cut 500 sprouts last fall, it having stood in the ground unprotected ever since. Mr. Scott was unacquaintod with the great value of the tree, as he gave the sprouts away to some of his more knowing neighbors.

There are some trees in this village which were three years old last spring owned by L. M. McKay, perfectly hardy.

I have erected this season a building 50 feet long, by 30 wide, called the "Carradilla Cocoonery," in which I have already fed to a successful termination 40,000 worms, and produced cocoons, 196 of which were selected and weigh one pound; these were fed principally on the indigenous mulberry, an abundance of which is growing in our vicinity, as the multicaulis is too valuable to allow us to use the leaves, by sending children to gather the foliage. Some few worms fed on the multicaulis, produced larger and firmer worms than any other.

My building admits of four rows of shelves, (two of which I have in use,) and I have discovered that the ants have a great antipathy to red cedar, and have made the cleets on the floor of that material, at the bottom of my standards. I find also by placing chips of red cedar in my pantries where we were overun by large black ants, (which last season destroyed many of my silk worms,) we have been this season entirely rid of this pest. Although large numbers of the winged ants came to my house to deposite their eggs, probably recollecting the good fare they met with, while I was feeding a few worms (to learn their habits) upon my sideboard.

From my experience this season, I think I can afford to feed worms and pay two cents per pound for leaves delivered at my cocoonery, and make a profit by the business. I have had silk reeled from some of my cocoons, making 1 lb. from 3,000, after selecting the best for seed. The reeling was done on a common reel, and is exceedingly simple. The success of my experiments this year, has done much to induce others to engage in the business. I have given worms to some 50 to 100 families, who are now feeding small parcels, and will become silk growers. I find a great saving of labor in feeding, by chopping the leaves in a common straw-cutter, one person can do the labor of six, or perform the task in one-sixth the time.

My attention was first directed to the silk business, by the public documents, 20th congress, 1st session, on the growth and manufacture of silk, which were presented to me by a member of congress, in 1828; and I would suggest to the American Silk Society the re-publication of such of the matter as may still shed light on the silk subject, (as that is now out of print,) to be sold for the actual cost of printing.

Respectfully yours, W. A. WOODWARD.

From the New Haven Daily Herald.

THE CANKERWORM.

We would nvite the attention of our citizens to the following art cle on the Cankerworm. The renewed foliage with which our shade trees are now covered, has in some degree removed the apprehension enter. tained a few months since, that we were in danger of losing one of the chief ornaments of our city. Our citizens ought to be apprised, however, that the effort required to put forth two sets of foliage annually, can. not be sustained, ordinarily, longer than two or three successive years. For one year, or two, this may occur without serious detriment; but the third year commonly proves fatal to the tree. Many of our most valuable ornamental trees have now been completely denuded two years in succession, and, unless measures are immediately taken to secure them from the ascent of insects this season, many of them will probably be lost next summer. The insects will now soon begin to come out of the ground, so that what is to be done ought to be done immediately. We return our thanks to the anonymous author of this communication, which comes to us under the post-mark of Philadelphia, and will forward copies of the paper as he has desired.

Entomology of the Cankermorm—Phalaena Vernata Geomatia.—PECK.—*With general remarks upon the various remedies or preventitives.*

From the numerous remarks that I have heard made in various parts of the country, I was led to believe that the character and habits of the Cankerworm were very imperfectly understood. And as its ravages appear likely to destroy a considerable portion of the fruit and ornamental trees, I was induced to study its entom . ogy; and believing it might be useful to those interested in its destruction, I concluded to offer the result of my labors to the public. And I would here suggest to the editors of newspapers, who are fond of fruit, and l ke to see flourishing trees, to insert the following account for the benefit of their readers.

The Cankerworms begin to hatch in the spring, about the time the red currant is in blossom, and the apple tree puts forth its tender leaves, which, in Boston, is about the last of April, or the first of May. When first hatched, they are about one-tenth of an inch long, and as large as a fine horse hair. Having made their escape from the eggs, they move about with great activity in search of food, and having arrived at the extremities of the branches, they begin to feed upon the pulpy part of the leaves. And if a leaf is taken and held against the light, it appears perforated with numerous small apertures, like pin holes. They acquire their full growth in about four weeks. During this period they cast several skins, each succeeding skin being larger than the previous one. The number of these and the time intervening, is not ascertained. As they pass through these stages, they become more and more voracious, and in the last stage are more destructive than in the whole of their previous existence, and make no hesitation in destroying the entire foliage, but eat the green fruit.

These worms spin a continuous thread as they move about, and leave it attached to their path;—hence, if the branch of a tree is struck so as to give it a sudden shock, the worms may be seen suspended beneath by this silken cord; and when the shock has ceased, they ascend to the place from whence they fell. Immediately beneath the mouth, there is a conical papilia, from whence the fibre that suspends them is emitted. Their ascent, when thrown from the tree, is slow, and is performed by bending the head and antorior part of the body back, until the feet in the third segment can grasp the thread; then bringing the head forward, they seize the thread with their jaws; thus continuing to fold it up until they reach the branch of the tree. They pause at intervals if the ascent is long. If by chance the thread should get broken, they crawl to the trunk of the tree and ascend.

The larva, or caterpillar, is, when full grown, about nine-tenths of an inch in length, and one-eighth of an inch in diameter; the head pale, marked on each side with two transverse blackish stripes; the back ash. colored, marked lengthwise with small, interrupted dusky lines; the side blackish, with a pale line along the length of the body. There are two white spots upon the last segment of the body. The abdomen or under side, is ash-colored. In moving about they draw up the hinder part to the breast, bending the body into the form of the letter *n*; then extending the body to take a new grasp with the anterior feet, thus appear to measure the space over which they pass. From this circumstance they are called *geomatia*, and in English, lopers, span. worms, inch-worms, &c.

In about four weeks after they are hatched, they cease eating, and descend to the earth and enter it, from four to eight inches, according to the quality and condition of the soil. For the first few days they continue shortening their body, and drawing in their feet. When they have contracted themselves sufficiently, they disengage their skin and slip it off, and become a chrysalis, which is about half an inch long, and one-seventh of an inch in diameter.

It appears that the insect is soon perfect, as some of them in New England rise from the earth as early as the last of September, and they rise, more or less, until the first of May following, whenever the weather suits them, and the ground is thawed to the depth of their abode.

When they rise from the ground they appear in forms entirely different; the antennæ or horns of the perfect insect are setatious. The body of the male is of an ash-en amber color, nearly half an inch in length; extent of its upper wings one inch and two-tenths; the wings are ash-colored with three obscure blackish stripes, and a small dash of the same color at the tips. The under wings are of a uniform color, and rather lighter than the ground of the upper ones. The body of the female is about four-tenths of an inch in length, ash-colored and marked on the back with a brown list, extending from the thorax to the tail. She is destitute of wings, has six long dusky legs with white joints. Both the male and female remain quiet during the day and adhere close to the bark of the tree, and are so near the same color they are not seen without close inspection. In a short time after sunset they begin to move. The males may be seen flying about. The females being destitute of wings, are under the necessity of ascending the trunk of the tree. They may sometimes be found together, subcupola. After this office is performed the males die, and in a few days the females deposit their eggs, about one hundred in number, which are deposited on the branches of the tree, and generally near the extremities. The egg is of an elliptic form, about one thrity-sixth of an inch in length, of a pearl color, with a yellowish cast. As the included animal advances, the eggs assume a brownish hue, and finally become lead color. The eggs adhere firmly to whatever they are laid upon, and appear something like the top of a thimble, except the indentations are much finer, and when laid in the fall are not injured by freezing, but hatch about the time before mentioned. During the last stage of their existence, they do not eat anything. The female after laying her eggs, having accomplished the object of her existence, dies. Cold weather does not have any effect upon the chrysalis moths or eggs, further than to benumb the millers and grubs (grubs is the name usually applied to the female) until it becomes warm again; for if the insects in this state, when it is extremely cold, are carried into a warm room, they soon become active. A piece of ice containing a number of grubs, was carried into a warm room. As soon as the ice was thawed so as to set them at liberty, they began to move about the room, and were none the less vigorous for having slept in a bed of ice. They have been known to rise from the earth when the water was standing over them, and come up through the water. When snow was upon the ground immediately around the tree, they have been known to rise from that part of the ground where there was no snow, and cross over the snow to ascend the trees. The greatest natural and most destructive enemy of this insect, is the Ampelus Garrulus of Linnæus, called by Mr. Calesby, the chatterer of Carolina; and in Dr. Belknap's history of New-Hampshire, *Cherry bird*. This bird destroys great numbers of them while in the larva state. Another check is a disease which may be called Deliquium, and is probably occasioned by a fermentation of their food. In this disease the whole internal structure is dissolved into a liquid, and nothing is entire but the exterior cuticle, which breaks on being touched.

The Cankerworm is spoken of in the Bible among the judgments which were to be sent upon the children of Israel; and is said to have been observed first in the southern states, where it is probably a native. It is certain that it must have spread by some means independent of itself, as the female, being destitute of wings, is forbidden to range. It may have been brought into New England by bringing trees from the southern states, upon which the eggs were deposited, or brought in the larva state, into all populous parts of the United States, by falling from trees upon carriages and travelers passing under them. This conjecture is rendered probable, by its being in all places which have intercourse with such parts as are infested with it; and by its being unknown to new settlements.

There is a tradition among some of the oldest inhabitants of New England, that the forest trees were destroyed very generally by this worm at one time: the precise period when this occurred I have not been able to ascertain. The night of the 17th of May, 1794, was so cold as to produce ice one-third of an inch thick; at that time a great part of the Cankerworms were hatched, to these the frost were so fatal that very few were seen. A person who paid very diligent attention saw but one male the next year. I am firm in the belief that frost would not kill them at any time except when in the larva or caterpillar state.

Having given the best description of the Cankerworm that the above limits would allow, I will now proceed to describe some of the remedies or preventives. It will appear by reflecting upon the peculiar construction and habits, that the females, being destitute of wings and under the necessity of ascending the trunks of the trees, any apparatus that would prevent them from ascending in case they laid their eggs below, would prevent the young worms from ascending. It is also obvious that this apparatus must be of a durable character, so as to be a preventive seven months in a year, as will be seen by the foregoing description, that the grubs begin to ascend in September, and continue until the May following. The remedy that I shall first notice, is tarring the trunks of the trees. This, undoubtedly, would be effectual, if the tree could be always kept in a proper state; but this is extremely difficult, if it is possible; a large portion of the time the tar would want renewing every day, if not twice a day. Sometimes oil or water is mixed with the water, that it may remain soft longer. One gentleman of ample experience informed me that he lost a crop of apples by mixing oil with the tar. It appeared to render it so smooth that it did not adhere to the feet of the insects. When tar is used, and the insects are numerous, the dead bodies of those that are caught, pave a path for their successors to pass; and if a tree is tarred, and it rains upon it a few minutes, the water will glaze the tar so that the insects pass over with impunity. And they are more likely to ascend when it rains than at other times, as the water softens the ground and facilitates their escape. If but few of the grubs ascend the tree, the worms from their eggs would be liable to destroy the trees. If tar is used, it is very injurious to the trees, if applied to the bark, as it destroys the outside bark. Those who use tar and do not wish to injure their trees, put a bandage of paper or canvass around the tree, and apply the tar upon that. Some are of the opinion that if the tar was applied directly upon the bark, that it would, in time, kill the tree. Very few persons who use tar have been able to save their fruit for the first year, but they gene ally calculate that if they apply it closely, to destroy most of the insects in two or three years. Heaping a little sand around the trunks of the trees, so that the insects in crawling, loosen the sand with their feet, and it rolls down, carrying them down with it. When the sand is moistened with rain or dew it will not roll down; hence this remedy is almost or quite useless. If the sand keeps them down, they might lay their eggs below and the young worms would ascend over the sand, wet or dry.

Heaping the sheaves of flax around the tree, which is sometimes done, is liable to the same objections as sand, and one other is, that there is so little raised, that it would be hardly possible to procure sheaves.

Putting circular tin troughs around the trees, and filling them with a decoction of tobacco. This was tried by George Irish, of Middletown, R. I., and found to be very expensive, as the liquor evaporated and required to be filled very often; and when it rained, the water collected in them, and freezing, burst them, leaving them very leaky, and as the trees grew, they burst them and rendered them quite useless, and they were abandoned in one or two years.

Putting a square tin trough around the trees, with a roof over it, the trough to have a little cheap oil in it. This was found to answer better than any the foregoing remedies, but it is very expensive, and requires so much care, as it is necessary to make a platform of boards to support the trough, and prevent insects from ascending between the trough and the tree. As the tree grows it separates the platform, and the trough is required to be made larger. In making the trough larger, it is necessary to unsolder or cut it open, and put four pieces into the trough and four into the roof. And the tin by continually being exposed to the weather, soon rusts through and becomes worthless.

I have noticed in some parts of the country, a piece of tin put round the trees, in the form of an inverted tunnel; this apparatus must have been contrived by some person who was ignorant of the entomology of the Cankerworm, as it has been ascertained by experiment that the grub, when put into a glass tumbler, will ascend the side, and if during her ascent, the tumbler is turned down and rolled over, she will adhere to the glass, and walk about upon any part of it without any apparent regard to the rolling of the glass, and appears to walk as well upon the under side of the glass as upon the top. Hence all who have used these inverted tunnels, have found them useless, or will if they continue to use them.

A circular leaden trough and roof was invented by Jonathan Dennis, Jr. of Portsmouth, R. I., in 1836, and has since been patented. This trough and the roof is made of one strip of sheet lead, about three inches wide, but in the form of the top of figure 2 inverted, with the foot cut off; thus forming a roof and trough of one strip, and then bending it round the tree so as to con-

form to the shape of the tree. It is made so large as to leave a space of one inch in width between the trough and tree. The ends are then soldered together, thus forming a trough completely round the tree with a roof over it. Three or more nails are tacked into the tree to support it, and the space between the trough and the tree is filled with seaweed, hay, straw, husks, tow, cotton waste, or any other substance that will prevent the insects from ascending between the trough and the tree, and is easily compressed by the growth of the tree. These troughs were put on to three orchards, belonging to Jonathan Dennis, of Portsmouth, R. I., father of the inventor, in the autumn of 1837, and it has proved to be the cheapest and most effectual remedy ever discovered. The three orchards contained one hundred and fifteen trees, varying in size from three inches to upwards of two feet in diameter. The expense was about 35 or 40 cents per tree. Five gallons of cheap fish oil, that cost 40 cents per gallon, was found to answer for the 115 trees for one year. A very little oil was put into the troughs the last of September. After it had remained several weeks it was stirred, and in a few weeks afterwards a little more was added; and from the time the oil was first put in until the first of May following, there was a little oil put in twice, and the oil also received two or three stirrings. Putting the oil in three times and stirring it, giving the trees all the attention necessary, was less labor and occupied less time than it would have taken to tar the trees for one week. This apparatus destroyed the insects so completely, (which for a number of years previous had been so numerous as to destroy the fruit, that it was difficult to find one upon the trees, and the crop of apples was so large as to render it necessary to prop the trees. This apparatus has many properties to recommend it. It is more effectual, more durable and cheaper than tin troughs; it also takes less oil to fill a circular trough than it does a square one, for a tree of the same size. The packing is more easily put in, as the space is of a uniform width around the tree. It is also less liable to get out, and if the top of the packing was daubed with a little tar, it would stick it together, taking care not to put any tar upon the tree or the trough, but only upon the packing. This trough will last many years without being made larger, and when the tree has grown so as to fill the space that was left between the trough and the tree, the trough can be cut open and a piece soldered in so as to make it large enough for several years more. And if the troughs are ever taken off, the lead will be worth two-thirds as much as it was when it was put on. But I should not consider it safe to take it off while there were any cankerworms in the neighborhood, for they have been in some neighborhoods for the last fifty years, without intermission, according to the accounts of the inhabitants. Being in conversation with an oil merchant, I inquired what kind of oil would remain longer exposed to the air without drying upon the surface, he replied that cod fish oil would never dry perceptibly, and for that reason was never used for painting, and of course would be the best to put in the above-mentioned troughs, for the destruction of cankerworms.

A Lover of Good Fruit and flourishing Trees.

From the Maine Farmer.

Capital, invested in Agriculture, both Safe and Profitable.

At the present time when there is much derangement in commercial concerns, and when the world seems filled to a surfeit, with all kinds of stocks, it may not be improper to pause for a moment, look around us and see what sort of investments have stood the tests which the various circumstances of a political and commercial nature have brought to bear upon them. Is that portion of capital which is invested in the thousand and one speculations of the day, as safe and as productive as the holders desire? Do the banks exhibit in their returns, such an enormous dividend that it makes their stock so very lucrative that it is an object to invest in them largely? We think not. If we take the whole amount of bank dividends in this state, and average them upon the amount of capital stock, they will hardly amount to four per cent. Look at the various kinds of fancy or other stock, which have swallowed up so much of the capital of our own citizens—very few of them yield six per cent. Again, look at the active commercial part of community. Group them all together and sum up the profits and the losses, and average them among the individuals, and will their profits be so great and so splendid, that it would be the cause of envying the proprietors? So unsettled has been business, and so full of uncertainty and fluctuation, that hundreds and thousands, who have entered the field of commercial enterprise with some little capital, the fruits of their own or their father's industry, are now in fact deeply insolvent, and in truth pennyless, however well they may manage in concealing it by the use of other people's property.

Well, how is it with capital invested in Agriculture? How is it with funds invested in the soil and the improvements of a well managed farm? Are they any more productive, or are they, in fact, as far in the back ground as the votary of commercial speculation would fain make the world believe? We believe if we take the amount of capital invested in any well conducted farm, and carefully calculate the nett proceeds, it will be found that it is more productive than most of the investments of the present day. Let us take for instance any particular crop. The oat crop is as fair a one as any to calculate upon.

Let us first estimate the amount of capital to produce a crop from an acre;—and first we will give, what in this state may be considered a large price, especially if we were to purchase a whole farm at the rate, we will

give $50 for the acre,	$50 00
Plowing,	2 00
Seed,	1 25
Harrowing in,	1 00
Interest of cost of acre for one year,	3 00
	$57 25

We will give the straw for harvesting and thrashing, and we have now invested fifty-seven dollars and twenty-five cents.

We will suppose that you get thirty bushels of oats, and that is a crop hardly worth bragging about. Our friend Ford, of Gray, gets 66 bushels per acre, but we will take thirty, only *thirty*, and we will sell them for less than we gave in the spring for seed. We will sell them for 37 1-2 cents per bushel, which will amount to $11 25. Now, eleven dollars and twenty-five cents is the interest of $187 50, at six per cent, or in other words, is more than NINETEEN per cent upon the interest of capital invested, including purchase money and all. But as you have the acre still on hand, deduct if you please, the fifty dollars which you gave, and the expenses will then amount to $7 25. This then is the actual floating or circulating capital required to produce your acre of oats, including rent or interest of purchase money, and the nett income, eleven dollars and twenty-five cents, is about 155 per cent. *Fiddlestick*, exclaims neighbor Scrubbard—now, this all humbug—real book farming. Any body can get rich on a piece of paper. If money can be made easy by farming, why *aint* I and every other one who have been farming all our days, as rich as mud? *I don't believe nothing on't.*

Well, neighbor, put down your *goadstick*, and let us inquire into it. How large a farm have you? One hundred acres. What did you give for it? Two thousand dollars, or $20 per acre. The interest of this is $120. Well then I have to pay twenty dollars in taxes; that makes one hundred and forty dollars; then I have to hire help—two men six months in the year, and and work hard myself the year round. Well, we will give you all twelve dollars per month; that will be one hundred and forty-four dollars for yourself, and $144 for your men; equal $288, which added to the interest and taxes (one hundred and forty dollars) makes four hundred and twenty-eight dollars, outsets or circulating capital. Then, there is the interest on the cost and wear and tare of tools, you haven't reckoned. Well, we will give you seventy-two dollars to pay for that, which is the interest of more than a thousand dollars for your tools and implements, but we will give you that sum, which added to the four hundred and twenty-eight dollars, will swell it up to $500. Now, how in the world do you pay this five hundred dollars but off of your farm? Mind you, this $500 is what you invest, year after year—it is the interest of your first investment of two thousand dollars for your farm, payment to yourself and men for labor, &c. Now, how much land do you cultivate, and how much hay do you cut? I cultivate twenty-five acres, and mow twenty-five—I have twenty-five in pasture, and twenty-five in woodland.

Produce.

2 acres of Indian corn,	50	bush.	worth	$50 00
4 " potatoes (light crop)	1000	"	"	200 00
5 " oats	150	"	"	56 25
6 " barley	120	"	"	80 40
5 " wheat (light crop)	50	"	"	50 00
3 " rye	60	"	"	60 00
40 tons of hay worth $6 per ton				240 00
Total				$736 65

Thus the whole amount of your crops are worth $736 65, making due allowance for rust in your potatoes, and weevil in your wheat, and not rating the other very high, either in amount per acre, or at a high valuation in market. We have charged you nothing for seed, and although we have allowed you *half* wages while sowing, cultivating and harvesting, we have said nothing in regard to the value of straw, husks, &c. You have thus realized $236 65 more than a return of your circulating capital, which is more than forty-seven per cent. Ah, well—this looks mighty well on paper, but it isn't *cash*. The merchant and the broker have the *clean cash*, while we poor farmers have to go without the rhino, if our barns and cellars are ever so full. What then? it is what will purchase cash—it is property—it is substantial wealth. If you were under the necessity of buying this amount of produce in the markets you would find that it was worth something. Scrubbard looked somewhat puzzled. It is true, 'twould cost a good deal to buy whatever a poor farmer may raise; but after all where there is one that does as well as you have figured out, there are ten who run astern, and finally come out of the little *eend* of the horn. Grant that neighbor, and what is the reason of it? They do not invest capital enough in the business, either because they have not got it, or they are too penurious. They may cultivate a few acres well which may yield them a good profit, while they suffer nine-tenths of the rest of their farms to lie idle, and the interest on the cost of these acres eats up the profit of the few that they do cultivate. We have said nothing of the income from your pasture or your woodland.

If the position here taken be true, and we challenge scrutiny, and beg to be put right if we are wrong; how much better would it be if those who are now farmers by profession, would if able devote more capital to their business, instead of diverting it, as many do, into other channels, and engaging too largely in other business.

Any one, who rides through the state, cannot but notice the thousands of unimproved acres on either hand. How much better would it be if more of our young men would take hold of the business of farming instead of aspiring to a life of *apparent* ease in commercial pursuits. It is true that the farmers' crops are sometimes cut off; but not oftener than are the hopes of the merchant. Mildew and hail and rain and hurricanes sometimes destroy the fruits of the earth; but not often than do the elements work destruction upon the ships of the importer.

Life is full of vicissitudes and risks and changes, in whatever place or pursuit you can engage, but, taking every view we can of the whole, we are convinced that capital invested in agriculture is most safe and profitable.

Vegetative Power of Sea Sand.

A few days since a quantity of sand was carried out of Morecambe Bay, about a mile from the Furness shore. It had been, less than an hour previously, covered a considerable depth by the tide, and contained several cockles and other shell fish. It was immediately placed in pits or beds, fifteen inches deep, and sown, without manure, or admixture of any kind—just in the state it was when taken from the bay—with wheat, barley, peas, mustard, cress, and radish seed. In five days the mustard, cress and radish seed had sprouted, and begun to vegetate, having thrown out a considerable length of root, while (what is most extraordinary) the shell fish were even then alive! Thus have we wheat, barley, peas, mustard, cress and radishes, all growing, and cockles and other shell fish in a living state, in one and the same bed of sea sand! Should any one be at all incredulous as to the truth of this statement, he can easily try the experiment himself; an ordinary flower pot filled with sea sand, sown with almost any kind of seeds, would at once put the matter to the test. Common hay seed sown in October last in beds of sand similar to the above, and treated exactly in the same way, have now grown to the extraordinary height of 3 feet 6 1-2 inches. Some wheat sown about Christmas last (now in ear) 3 feet 3 inches; barley do. 3 feet 3 inches; peas sown about April last (pods completely formed) 3 feet 3 inches. The farmers all around the Bay of Morecambe, in forming composts for their wheat and barley crops, use of sea sand about 26 carts (small one horse carts) lime, about four carts, manure, ten carts, per statute acre. Why use so great a quantity of sea sand if it does not possess very considerable vegetative power.—*Eng. Paper.*

From the Maine Farmer.

PIGGERY.

MR. HOLMES—In your number 36 you speak of the ingenious construction of my piggery, and request a plan of the same. In my communication in No. 35 I held the following language. It is somewhat natural for mankind to boast; well where is the farmer who can boast as follows: in 25 minutes I can cook 8 bushels of potatoes, carrots, or sugar beets, and in five minutes I can feed my swine, 15 in number, I have things so well contrived. I did not say that I had a well arranged piggery, but my object was to call the attention of farmers to this subject. I am desirous of finding at least one farmer who has a cookery and steamboiler, and every thing "just right" that I may have an example of what ought to be done, but if I do not find such a farmer, I will give an example of the kind myself in due time, if my life and health are prolonged, R.

Rumford, Sept. 1839.

COMMUNICATIONS.

CHINA TREE CORN;
And the "Rochester Seed Store."

Mr. Tucker—Since my return from England, I have been looking over the Agricultural papers received during my absence, and observe numerous articles on the subject of Thorburn's celebrated China Tree Corn, most of which condemn it as an "imposition," "humbug," &c. Many of the writers obtained their seed directly from Mr. Thorburn, and of course must look to him for any explanation they may require. But others obtained it through different seedsmen, and seem inclined to suspect them of selling a spurious article for the sake of gain.

In your paper of the 7th of October, is a communication from Syracuse, signed W. and headed "Gross Imposition." The writer, after stating that he was induced to try the corn from reading Grant Thorburn's glowing account of it, complains that it did not answer the description, and proved inferior to our common varieties. He then adds,

"We look upon the matter in this section as a gross fraud practiced upon the public for the sake of gain. The odium at this time is principally attached to Mr. Thorburn, inasmuch as he has the credit of furnishing all the seed; some of which, I am informed, came directly from his store in New-York; most of it, however, that was planted in this vicinity, came through the '*Rochester Seed Store*,' but was said to be genuine seed from Thorburn's. We look for a satisfactory explanation."

In the Farmer of November 9th, is a reply to W. from Grant Thorburn himself. But, to me, it is far from being a "satisfactory explanation." He says, he "*thinks W. has not got the true kind*," and then adds, "the seed sold by his sons in New-York, Albany and St. Louis, was genuine." I am afraid old friend Laurie is becoming rather uncharitable of late, and since he is so free with his insinuations, I shall have to "unfold a tale" which, I fear, will render his defence of but little service to him.

Soon after Mr. Thorburn published his wonderful corn story last fall, I began to have numerous inquiries after the seed. Accordingly, on visiting New-York in October, I purchased of Mr. G. C. Thorburn a quantity of the corn, and was informed that his supply was limited and selling rapidly. Soon after reaching home, this lot was all disposed of, and I sent to Mr. Thorburn and obtained an additional supply. This was all sold during the winter, and as the spring approached the demand seemed to increase. By this time, I expected to hear that Mr. Thorburn's stock was entirely exhausted, as he had stated that he only raised a small patch of about 200 hills; but to my surprise, I was informed that his supply was still adequate to the demand, although orders poured in upon him from every quarter. O, rare Laurie Todd! thought I, your corn is certainly "something new under our sun," and well did you name it "Prolific," for it seems to possess the miraculous properties of the ancient Widow's oil—the more you draw from it, the more there is left! Being rather sceptical on the subject of modern miracles, I determined to inquire into the mystery. I then learned that the wonderful "new variety" was an old acquaintance among the farmers of Long Island, several of whom had cultivated it for a number of years, and were then selling their crops to Mr. Thorburn, to supply the immense demand which he had occasioned.

Supposing I had contributed my share towards the nameless "charitable institutions," I now purchased a further supply of seed from Mr. G. R. Garretson, of Flushing, which I have the fullest proof was the same in every respect as was sold by Mr. Thorburn. All that was had or sold at the Rochester Seed Store, was the two lots from Mr. Thorburn and one from Mr. Garretson. The following letter was lately received from Mr. Garretson in relation to the seed from him:

Flushing, L. I., Nov. 5th, 1839.

Mr. M. B. Bateham—*Dear Sir:* In answer to your inquiries about the China Tree Corn which I sold you last spring, I would state that it was precisely the same as was advertised and sold by Mr. Thorburn under the name of "China Prolific Tree Corn." It was raised by Mr. Jonathan Mingo, of Flushing. Mr. Thorburn purchased some of the same man, and I sold Mr. Thorburn some of the same lot as that sold you.

Yours, &c. G. R. Garretson.

Owing to its southern complexion, I always had some doubts of the adaptedness of the corn to this northern climate, and I never recommended it to my customers, any more than to refer them to Thorburn's own account of it, and let them take it on his responsibility alone. My patrons may rest assured that I shall always be ready to give full, and I trust, "satisfactory explanation" of any matters affecting the reputation of the Rochester Seed Store. The task of a seedsman is generally a thankless, as well as difficult and responsible one. And while I do not mean to shrink from any blame or responsibility which justly belongs to me, I cannot consent to become responsible for the statements of every puffing "new variety" monger who may have a fine patch of corn or potatoes to dispose of; even though the profits are to be given to charitable institutions.

M. B. Bateham.

Rochester Seed Store, Nov. 25, 1839.

P. S. I am frequently asked, what "charitable institutions" received the donation promised by Mr. Thorburn; and some uncharitable ones actually suspect that he pocketed the funds. But any person at all acquainted with the unimpeachable christian character of Grant Thorburn, would consider that to be an impossibility. The only reason I can give for the non-appearance of any public acknowledgment, is, that it would be offensive to the modesty of the donor, who doubtless wishes to "let his alms be done in secret." Still, as this money was made up of contributions from many who do not think they received an equivalent in return; justice to their feelings renders it necessary and proper that the receipt of the donation should be publicly acknowledged.

Walker, on Intermarriage and Breeding. No. 2.

Having given us, with magisterial importance, the law by which nature propogates the different races of animals, and particularly that "fearfully and wonderfully" organized animal, *man*, our author proceeds to quote from the most eminent breeders and philosophers of Europe, what he doubtless considers a mass of opinions calculated to corroborate and establish his hypothesis, but furnishes no manner of evidence, or shadow of reason, why this peculiar distribution of organic powers, parts and systems, should be any more probable than any other division that an ingenious inquirer might easily suggest. What reason he has for dividing the organs, and functions, and diseases, thus contributed by the respective parents into *vital* and *locomotive*, we have, with all our privileged yankee propensitities for guessing, been utterly unable to imagine or divine!! Or why nature, in the variety of her organic creation and modes of propogation, should make choice of these two systems instead of any other two she might adopt with equal facility, he has not condescended to inform us!! She certainly might, with precisely the same regard to order, arrangement and increased production, have selected the glandular and the locomotive; or the glandular and vital; or he might have used, with an equal authoritative manner, the vasculur and glandular, or the osseous and arterial, or the nervous and respiratory systems, or the excretory and secretory, or the muscular and sensitive, or any other we may name, as the grand dividing lines of demarcation—the parts are as distinctly marked, the organs are as widely dissimilar, and indeed much more so, than in the ridiculous and vain division of the faculty of volition from the reasoning or thinking faculty. It is a singular instance of disregard for the spirit and intelligence of the age, in a man making such pretensions to science, that not satisfied with dividing our corporeal and material organs in such manner as to make one of the two halves the gift of one parent, and the other of the two the gift of the other parent; he should extend his system so far as to include immaterial and spiritual essences in his vague and visionary theories; and thus obtain the thinking principle or faculty in separate parcels from the two parents. I am not disposed to dispute the fact, that there are hereditary mental defects and diseases, as well as corporeal and physical, but they are far from being "necessary consequences of certain unions;" and may be stated more as accidental circumstances in pathology, than as universal or even general results depending upon any well defined or ascertained law of primordial existence; but perhaps we may be suspected of misrepresenting our author's legitimate conclusions; let him speak for himself:—

"It is remarkable, that in the propagation of resemblance from parents to progeny, the thinking organs should be divided; one parent giving one portion, namely, those of *sensation* and *observation;* and the other parent giving the other portion, namely, those of *passion* and *volition*. * * * The communication of mind, and its most distinguishing or peculiar characteristics to progeny, evidently depends on mind, and the relative predominance of its two great divisions in parents, and on each of these again depend the locomotive system and the vital respectively."

What a thrice baptised fool must the mother of Rehoboam have been, when all the wisdom of Solomon was insufficient to transmit the ordinary rudiments of common sense to their joint offspring, even when nature is kind enough to depart from her usual practice in favor of mind, and transmit it in equal divided moieties. It is true, his father may have given him passion and volition, (of both which he appears to have had an abundance,) and his mother, sensation and observation, (of the latter of which he must have had but little,) and this must account for his folly; but stop! stop!! on these two grand divisions of mind "depend the locomotive and vital systems respectively." Now what is the meaning of this sentence??? that the organs of passion and volition regulate and control the shape and the form of a man, or an animal, with all his bones, muscles and tendons, (these constituting the author's locomotive system,) while sensation and observation control the heart, the lungs, the abdominal viscera, the excretory and secretory organs, (which constitute the author's vital system;) if it does not mean this, it is nonsense, and has in reality no meaning.

Let us suppose, then, that the organs or functions of volition and passion (for the author has both a function and an organ of volition, and leaves us to presume that he has one of each for passion) regulate and control the shape, texture and qualities of an ox's bones, muscles and ligaments, then the inference is fair that such shape and texture depends upon the exercise of those functions, otherwise the doctrine of fatalism and necessity is revived, and they effect their object while inert and inactive. This I take to be a contradiction in terms; and, on the other hand, if the doctrine of free-will is admitted, a man, or an ox, a hog, or an ass, may regulate and control his own shape and figure, and determine the texture and properties of his bones, muscles and ligaments, without the aid of either father or mother, sire or dam. This is proving too much, because it destroys the agency of the parents, and the whole system and hypothesis falls to the ground.

And again, if the vital system depends upon the other grand division of mind; and sensation and observation control and regulate the heart, the lungs, the glands, the secretory and respiratory organs, then the order of nature is inverted, and sensation and observation, instead of depending upon vitality, make the latter the dependants. The fact is, that sensation and organization are simultaneous and co-existent with vitality, and observation follows and succeeds them as the man or animal progresses in age.

But we must again inquire what is meant by the propagation of resemblance among the thinking organs. Is it meant that the *habits* of thought, or the practice of thinking, of observation, and of reflection are simi-

lar, or only that the shape and form of the cerebellum and cranium, and the organs by which we think, observe and hold intercourse with the material world, have a resemblance to each other; if the former, the argumentum ad absurdum is manifest by the mere statement of the proposition; if the latter, we have only to refer to the universal experience and judgment of mankind for a positive contradiction.

I have been led from the proper order of proceeding, or I should sooner have noticed these "two grand divisions of mind." It has hitherto been the general impression, that the mind or thinking principle was a continuous whole; that *sensation* was the *primum mobile*, or moving cause of its excitement to action; and that observation, as well as passion and volition, were mere operations of the thinking principle, and no further dependant upon parental influence, than as they were respectively controled and educated by parents after birth. It is said in the book from which Dr. Walker has not drawn very largely, that "there is a spirit in man, and the inspiration of the Almighty giveth him understanding;" but it seems now that the understanding and its operations are hereditary and transmissible; and that even posthumous children cannot expect to lose either the virtuous or vicious propensities of their ancestors; and that bastard or natural children are better than those of married parents. This is a doctrine tinctured too deeply with Owenism to be very savory to the American people; and we are gratified to find that it has its parentage on the opposite side of the Atlantic. What effect it may have upon the breeding of the inferior animals, we shall not now stop to inquire.

Now, with all due deference to Dr. Alexander Walker, M. D. F. R. S. L. S. &c. &c., there can be no separation of the organs of *passion* from those of *sensation*, except that *sensation* is a wider term, and embraces a somewhat larger scope of ideas. The passion of *love*, with which his book is so largely filled, is itself a *sensation*, and cannot exist without it; and to say that a man does not love, or hate, or fear, or that he is not angry, is to say that he has neither of those sensations or feelings, and the opposite doctrine is merely saying that you have the toothache without the sensation; how then can one parent transmit passions without their corresponding sensations. We can only say, *non constat*, it does not appear, it is not before the court in evidence.

It is now time for us to ask for the difference between an organ of *sensation* and an organ of *observation*.—The former we know to be an eye, an ear, a nose, &c.; and when we are capable of observation without these, we shall perhaps be able to comprehend the difference. We know that nature has given us five of these organs, and the same number has been bestowed upon our domestic animals; and it is at least rational to doubt these supernumeraries, unless supported by a better authority than the dicta of this systemizing organologist.

Let us, however, proceed to examine how all this is to operate upon his system of propagating by halves. A man gives to his child the locomotive organs, and with them passions and volitions of a peculiar character; while the mother gives to the same child the vital organs, and with them sensations and observations peculiar to herself. These have been perpetuated from Adam and Eve down to the present generation; the progeny always transmitting the locomotive system of one of those two parents, and the vital system of the other!! The consequence is unavoidable; there could never have been, nor never can be, more than two locomotive systems, nor more than two vital systems; and consequently but two races of mankind, or two kinds of cows, horses, or sheep?? It is in vain to say that these may be respectively changed by combinations and modified by circumstances, because the author's theory is entirely at variance with such changes. On page 182, after laying down his law of production, and fortifying it with various authorities, we have the following:

"As organization is thus propagated in halves, the WHOLE *of the anterior series* of organs, sensitive and vital, *always* going together; and THE WHOLE of the posterior series, voluntary and locomotive, *similarly* going together, the reader will see the error of the common hypothesis of blood. According to that hypothesis, the sire and dam equally impart blood to progeny; and the filly produced by an Arabian horse and a cart mare, has one-half Arabian blood; the filly produced by this half breed and an Arabian, has three-fourths blood; the next produce has seven-eighths Arabian blood; and the filly produced by this with an Arabian, has fifteen-sixteenths Arabian blood."...."Blood is certainly very easily divided, and it serves the purposes of this hypothesis very well; but why is blood the material pitched upon; chyle or urine would have served the purpose just as well; and it would express just as much to say, the colt is three-fourths chyle, or three fourths urine, as three-fourths blood. All these are liquids contained in the tubular organs of the vital system, and go *in mass* along with that system wherever it goes. The fact is, that blood is a grooms term, invented by ignorant fellows, who wanted to look knowingly, and from these high authorities it has been borrowed, to the end of obscuring the whole history and truth of breeding."....."But I shall be told, we do not mean real blood; it must not be taken in its literal sense; we mean a kind of general influence, which is divisible like blood, and which the term blood is well calculated to express. This is a common subterfuge with men who have no precise ideas, who do not know what they mean, but would fain make others think they know something."...."To the reader, however, the folly of this hypothesis is evident, since he has seen that not the inorganic contents of the vital organs, nor *any fraction of these*, but the whole vital system is at once communicated by one parent, and the whole locomotive system by another."...."This shows the absurdity of *repeated* crossings with an Arab horse or any other animal; for the only effect which even the first of these *repetitions* can *possibly* produce, is by a new half organization to supersede the half given by the original stock, or the half given by the first Arab, while the second repetition may supersede that given by the remaining parent, thus destroying *all that* was given by both the original parents; and every *two additional ones* may similarly supersede the organization of all those who preceded them."

Now, if a man was anxious to make "confusion worse confounded," or was really ambitious, like Dogberry, of writing himself down an ass, he could hardly have strung together a combination of words and sentences better calculated to effect his purpose, than is contained in these few paragraphs. He sets out with the position, that there is one male and one female animal concerned in the process of reproduction; that each one of these has a different locomotive and a different vital system, that they respectively communicate to their progeny one of those systems, thus each one propagating its half, that the next progeny may have the same, or directly the opposite half communicated by the same parents; but no cross of the first parent with the progeny can add or diminish the half first communicated, unless to make it the whole stock of the original male or female parent; that as these or any descendants of them go on in the process of reproduction, they likewise communicate each one half of the original stock to their progeny from generation to generation, until he arrives at last to the astounding conclusion, that they may "destroy all that was given by both the original parents, and supersede the organization of all those who preceded them???" Verily this is jumping to conclusions in much the same manner as Quince gets moonshine on the stage—by carrying it there in his arms; and with all due submission to the learning that sneers at an equal division of blood, and at the suggestion of approaching nearer the original by mixing the whole and half blood in any given race of anima's; it is much more rational than this creed. In the southern sections of this Union, it is not an uncommon occurrence for the offspring of the white and black races, the mulatto, to have offspring by either one of the two original races; and these children, whether three-fourths white or three-fourths black, *invariably* approach the race with which the mulatto is connected. So near is this approach to the original stock, that it requires a practised eye to distinguish them; and one more cross with either of the original races, renders it almost impossible. There are men with such nice discriminating faculties, that they think they can distinguish even one-sixteenth of either the negro or the white race, and have corresponding names, as quadroons, quinteroons, teru roons, &c. to distinguish them, but the writer of this article, although he has seen them, and *after being told the circumstance*, has *fancied* something of the kind, could never himself distinguish the mixture, without having it first suggested; and can see no reason why the same facts are not applicable to other animals.

In sober earnest, if a man has not lost the chart and reckoning of rationality, can he believe that there is any such thing as a seperate locomotive, or seperate vital system; that vitality does not pervade every member, bone and muscle of his frame, or that the parent who imparts to him bones, muscles and ligaments, does not impart vitality along with them? Can any man, except Dr. Walker, say that the principle of life (the vital system) does not dwell in his bones as much as it does in his abdomen, or that one parent communicates tubes and absorbents, while the other fills them with the necessary fluids and secretions to sustain them? The philosophy of breeding animals has, within the present age, obtained some attention. And the mode of making the best choice, and managing those that we wish to propogate, has become a valuable kind of knowledge; the interest taken in it has probably led the author of this work to imagine that if some application of it was judiciously made to the human species, it would furnish him with an opportunity of circulating a popular book; that by an imposing title, associating some novel theory with a subject always of deep interest; it would enable him to foist upon our credulity, "a system," and thus pocket the proceeds of a handsome speculation. There has always been, and always will be, a large portion of mankind captivated by any thing new; and the author is well aware that the more a man assumes, the easier men are led; because their understandings are more completely bewildered and confounded. These reflections have most probably led to the manufacture of an octavo volume of near 400 pages, handsomely got up, with a delightful typographical execution, a few explanatory plates and embossed covering, eminently calculated for those whose curiosity and money are associated.

SCRUTATOR.

Protection of Tools and Tool House.

MR. TUCKER—As the farmer who has from fifty to two hundred acres of improvement, must, necessarily, have considerably many tools for tilling his land and securing his crops, it should be a prominent object with him to protect them from the weather. The importance of protection will be obvious to every farmer, when he recounts the cost of his farming tools, which, on a small farm, if tolerably well supplied, cannot fall short of one hundred dollars; and if the farm be large and well furnished with tools, the first cost cannot be much less than double that sum; and in some cases, it may be much more; and considers that his tools will not last much more than half the length of time, if exposed to the weather, that they would if protected from it. In addition to farming tools, the farmer may have pleasure carriages, both for winter and summer, which the most careless would not think of leaving out in the storm when not in use. All these may be protected, in part, by means of open sheds, but it is only in part, as the rain and snow is blown on to them in sufficient quantities to keep them damp. A better way would seem to be, to have a building appropriated to the protection of tools, and to which I have seen fit to give the name of tool house. The size of this building, of course, would depend on the number of tools to be secured; but such a building every farmer should have. Thus the farmer would not only attain the advantage of having his tools protected from the weather, but also of saving much time; for by having this a place for his tools, and having his tools in this place, he could find them in the least possible time.

CASSANDER.

Hume, November 14, 1839.

Premium Essay.

From the Franklin Farmer.

On Breeding and Rearing Horses for Agricultural purposes.

By William Williams, of Nashville, Ten.

The No. for June 1st offers premiums for the 1st and 2d best essays "on the subjects of breeding and rearing horses for agricultural purposes," The writers are laid under no restrictions as to the mode of discussion, or the breeds they may choose to advocate. An agricultural paper could not be expected to have been more liberal. A dissertation on the blood and proportions, the breeding, rearing and training the turf race-horse; or the stouter built, but not much less blood-like roadster, hunter, or war-horse which the advance of modern times has introduced, might not have suited the tastes of a majority of your readers. You are aware however, that by placing an interdict on the turf, the camp, the field, and the road, you damp the ardour of your writers, and strip the horse of his glory. The plow and cart horse is a more ultilitarian, and plowing and carting, however the poets may have embellished them in song, are known by the *Workies* to be plain fact matters, and effectually achieved by the due and continued application of bone and sinew. There evidently is no fancy in the affair to the man who holds the handles and guides the team. There is, however, ample room for the exercise of much practical good sense in pointing out the best method of breeding, raising, breaking and working farming horses to the best advantage. The profits of agricultural operations generally are moderate, and managed as they are in many instances, loss is incurred. Most breeders of animals, it is apprehended, receive but a very inadequate compensation for their time and attention and money expended. It ought not so to be, and that it is does not result necessarily, but from the want of proper care and judgment in breeding and raising. They follow what has been, not inaptly called the hap-hazard mode, by putting any sort of a female to any sort of a male without regard to qualities; and in raising they are so stinted and starved as to warp and destroy whatever little of good form and constitution, they may have accidently brought into the world with them. These seem to act without object, except that they know a horse is a horse and a steer a steer, and that if the colt was got for a barrel of corn and the calf gratis, and they have saved their money.

The business of breeding animals, in modern times, is said to be a science. It has not been, however, and probably never will be reduced to exactness. "Dame nature" in her operations delights to display endless varieties. But certain rules have been laid down by the observance of which we may reasonably expect to approximate certainty. "Like begets like" is the leading rule. It not only has its exceptions, but it must be understood with limitation. Select a horse and a mare, such as you want, or as near as you can find, the produce of their conjunction may resemble the sire, or the dam, or neither; but it may have an intermediate form, or may take after some remote ancestor; and if the remote ancestors were indifferent, or positively bad, the chances will be against the rule, in proportion to the number of worthy progenitors. It should be enjoined on beginners, therefore, 1st., To select good animals to start upon, where no better evidence can be had: 2ndly, But, where it can, to select them from good families.—In England, where more attention has been paid to the breeding and rearing the blood horse, than in any other country, they have arrived at extraordinary size, and power and endurance; and it has been done by combining the Arab, Barb and Turk, and developing the bone and muscle of the new race by generous feed and judicious exercise. There no one thinks of breeding a racer from a mare who has not at least five pure crosses. And many of their most distinguished mares can number double the amount, landing on a royal, or other Arabian or Barb mare. There is something in the blood, that gives family distinction, though the blood may not tell in particular individuals, either from mismanagement, or accident, or from some defect in constitution or form. A third rule requires that they be crossed; in other words, that we avoid the coupling together near relatives. The more remote the families, probably the better; but after probibiting the intercourse of sire and daughter, brother, and sister, beyond these we may probably be permitted to use our judgment in selecting the requisite forms. Some of the double Januses were very well proportioned, but they were very small. The double Archys evidently show a falling off. But Wagner by Sir Charles out of a Marion is thought to be among the good ones. And we need not look for a better than Highflyer, his dam by Blank, got by Regulus, both sons of the Godolphin Arabian.

There are some subordinate rules, that in the thorough bred studs, should be well considered. 1. Certain families cross better than others, all being good. 2d. Certain individuals better than other individuals. 3rd. And certain individuals breed better than other individuals. Herod and Eclipse were extraordinary racers and stallions, and were of good families, and they crossed well upon other good families. But the union of their bloods was rather transcendant, and were we to select from the best of Eclipse's sons, we should take these—Benningbrough, Waxy and Gohanna, all out of Herod, mares, and Hamiltonian, out of a Highflyer, a son of Herod. Sir Archy and Eclipse of Long Island are both good stallions and their blood is thought to cross well, but the blood of Eclipse and Ratler, son of Sir Archy, "nicks." These last rules are to be learned by practice only. Who can assign why Ratler's immediate descendants have not shown his worth? In them it is measurably dormant, but it is shining with resplendant lustre in Mingo and Job, of the second generations. And of Job it was hardly to have been expected as he combines an unusual proportion of Diomed and Sir Archy blood, being bred very much "in and in."

The thorough bred horse, standing evidently and acknowledgedly in the first rank, and the rules for breeding and raising him being "considered and freely understood" a variety suited to a particular purpose is to be produced by considering the proportions wanted and the families and individuals from which such properties are most likely to be inherited. Were the thorough breds equally numerous, and bred and raised at the same or nearly the same cost. I would say without hesitation, and so would every one who understands his interest, put the thorough breds to work. Eclipse, or Ratler, Tranby, or Mingo, or Job, if put to it in their prime, would have done more work than any inferior bred horses of their size. In June or July, blood will tell as promptly in the corn field as on the race course. My best breds always then take the lead. But the above, and such as the above, are not accessible to farmers generally.—The price forbids. What then is to be done? In this glorious land of liberty, every one, who has the means, does as he pleases, and I only wish, I can scarcely hope, that some individuals or companies or agricultural societies would import a bay Turk, a bay Barb and a Cleveland bay, and a bay dray, or draught horse. The Cleveland bays are said to be almost uniformly of bay color and universally gentle in harness. I have seen a few matches from the north, apparently half breds, excellent in harness, of the desired size and shape.

Draught horses, perhaps equal to any, might be had in Virginia or Pennsylvania. The stock should all be selected by a competent judge of horse flesh, and the two coarser kinds should be chosen not only with a view to their own stoutness, but family stoutness and gentleness at work, and with a scrutinizing eye to their hoofs and pasterns. Brittle horn, gummy ankles, or tendency to grease in the heals should be an insurmountable objection to a horse however perfect in other respects. We would of course have to choose the temper of the Barbs and Turks, though a man thoroughly conversant with horses can from certain indications form a tolerably correct estimate of their tempers. A person but moderately acquainted would be able to know that Belshazzar was quiet, and that St. Giles was "queer." The mares to be selected, should be well bred, of bay or brown colour and a few greys. They should have long heads, wide between the eyes, and jaws well displayed, with clear placid eyes, and open foreheads, with pointed, well set ears, and fine muzzles and nostrils; necks of moderate length and muscular, with large detached windpipes; having quarters before and behind with plenty of muscle; large bodies with large ribs, and the short ribs close to the hips; standing even and rather wide on legs abounding in bone and sinew, and terminated by tough black hoofs, A white pastern and hoof is about as liable to disease as those of black or dark chesnut colour. The Stallions should be of similar shape, but more coarseness is tolerable in them, particularly about the neck. The mares above described of 15½ hands high or upwards should be put to the Barb and Turk, those under, to the Cleveland bay. These three crosses in the general would produce stock of sufficient size. The best of the colts should be kept for stallions. When a filly was deficient in size she should be put to the dray horse. The crossing and the result of each cross should be regularly recorded. If of very defective form she should not be permitted to breed, or be put to a Jack. If the mule inherited the defect, it would not be perpetuated. And all the blind fillies, and those having defective eyes, should be put to a Jack, for a blind mule would be a curiosity. A colt thus bred might be kept as a coverer at about $10 the price of the season of one mare. And where the blood had been diluted with the blood of the dray, at $7,50 or perhaps $5, which should be the minimum price. Am I asked why the expense of importing a Barb and Turk should be incurred? It is answered, the Byerley Turk and the Curwen Bay Barb got a colt and filly, the sire and dam of Partner, one of the best horses ever bred. He got Tartar, a capital one. He got Herod, the lasting properties of whose stock have probably never been equalled. He got Highflyer, who had no parallel in his day. He got Sir Peter, a good racer, and, as a stallion, without a parallel in his day. He transmitted his excellence to Haphazard; and he to Paith-oda-puta; and he got Birmingham, who, but for the inroads made on his constitution by bad management, might have perpetuated the family stoutness. Perhaps it may be done by Philip, who came of Treasurer, a daughter of Camillus, "whose stock were particularly neat and of great strength for their size."

Having chosen the right sorts to cross, and thereby bring on a new variety, the mode of raising them may be described in a short compass. The mares and horses should be in good health and condition, when put together. During the period of gestation the work to be done by the female should be moderate, and as she approaches the time of delivery the work should be suspended and her condition a little improved. The male should not probably be worked, but plenty of exercise should be given him regularly, and his powers should never be overtaxed. The foals, for the best, should be dropped when the grasses are plenty to increase the flow of milk, or, if the mares are to be worked after foaling, generous food should be given them in sufficient quantities. The young will learn to eat at three or four months old, and may be weaned at five or six. They should be sheltered from the inclemencies of winter, and fed to keep them straight and growing, without being forced to precocious maturity, as is done in England, in the racing studs. The object of the forcing system is to attain size and strength to enable them to contend in "their 3 year old form" for the high prizes. The Derby, the Oaks and St. Ledger stakes have great attractions for breeders and sportsmen; and are annually won, not always by the best colts and fillies, but are annually the means of destroying, or greatly impairing the value of many good ones. Nature would indicate that a horse should have attained full age before he is put to his utmost exertions. Foals should be gentled immediately after their birth, and they rarely perhaps never forget it. Yearlings also should be kept growing uniformly in winter as in summer, and at 2 years old should be halter broke, and used moderately at three, increased in work at 4, and a filly at 5 will do full work, but a gelding not before six, perhaps 7. Very often, however, they are broke down before they are aged by improper management, and thereby several of the most valuable years of their lives are lost or rendered nearly useless.

A few objections may be answered to enable us to come to a close. It is said that the skins of the well breds are fine and liable to chafe and gall. The gear should be made to fit, be of good quality and kept soft and pliant. It is objected against the breds, that they are bad tempered, and restive, and unmanageable. The objection applies not generally, but to a part, and a small part only. The finest, and the best tempered, and altogether the best carriage horse I ever saw, was a Pacolet out of a Spread Eagle. And as to the restive, begin with them young and learn them obedience by times, and keep them obedient. If they are suffered to run wild till four or five years old, you should expect trouble, unless you could employ a "whisperer." I had a filly whose sire had a decidedly bad temper, and her dam's sire was equally vicious. She was worked tolerably well at three years old, but was injured so much by another team that she was turned out for the season, and the next year refused. She bred me a filly, sold for the saddle, and a colt, that works kindly, before I sold her, and a better roadster than her is rarely to be seen. I had two fillies full bred. The one was put to work at three years old and worked kindly. The other was a splendid creature, that I used under the saddle; but on one occasion and without requiring her work, but rather to see whether she would work, I put her to the plow. As she did not like it, and fearing she might be injured, I ordered her stripped. I have latterly worked a full bred of the same family; and another thorough bred in the wagon, merely to see that they would work, and they are now botth valuable brood mares, the thorough bred a splendid mare, and has a splendid filly.

Swill Dippers.

A venerable friend of ours often remarks that a *little thing* is oftentimes *larger* than a great one. We have been reminded of this remark by an utensil which we have obtained from Mr. Hill's tin ware and stove factory, in this village, for use in the piggery. It is made of sheet iron, holds about 6 quarts and is graduated by a mark so as to designate the amount put in, whether a gallon, more or less. A long handle is affixed to it. It is one of the most convenient things in a swill house that we ever used. The swill can be ladled out of the boiler, or cistern, or where it is kept and poured into troughs with the utmost ease. There is no dipping it into pails and then tugging and lugging and lifting and slopping along as in the usual way. Mr. Hill makes them of all sizes, and if you have many hogs to feed, by all means, call and get one.—*Maine Farmer.*

From the Domestic Encyclopedia.

VEGETATION

Is the natural process by which plants receive their nourishment.

Naturalists have formed various conjectures, to account for the mysterious phenomena occurring in vegetable nature; and though unable to discover the primary source from which plants are enlivened, yet it is now agreed, and proved, that all vegetables originate from seeds, each of which comprehends three parts namely: 1. The *cotyledons*, or two porous lateral bodies or lobes, that imbibe moisture: 2. The *radicle*, or *eye*, which appears between the lobes: and, 3. The *plumula*, a small round body attached to the radicle, though wholly concealed within the cotyledons, forming the part that shoots upward.

If a seed be deposited in the earth, in a favorable situation, it imbibes moisture, and evolves carbonic acid gas; but if any oxygen gas be present, it is gradually absorbed by the seed, and the farinaceous matter, contained in the cotyledons, acquires a saccharine taste. Numerous vessels then appear in the lobes which convey the nutriment to the radicle, that progressively increases in size, and at length assumes the form of a root; strikes down into the earth; and thence derives the nourishment necessary for the support of the future plant. Now the cotyledons shoot above the ground, become leaves, and form what botanists have termed the *seminal leaves*. Thus, the *plumula* is gradually enlarged, and rises out of the earth, spreading itself into branches, &c., after which the seminal leaves wither and decay, while the different processes of vegetation are carried on in the plant, without their assistance.

Plants are very various, and of course, the structure of each species must have many peculiarities. Trees have principally engaged the attention of anatomists. We shall therefore take a tree as an instance of that structure of plants; and we shall do it the more readily as the greater number of vegetables are provided with analogous organs dedicated to similar uses.

A tree is composed of a root, a trunk, and branches. Each consists of three parts, the bark, the wood and the pith.

The *bark* is the outermost part of the tree. It is usually of a green color. If we inspect a horizontal section, we shall perceive that the bark itself is composed of three distinct bodies. The outermost of these, is called *epidermis*, the middlemost, is called *parenchyma*, and the innermost, or that next the root, is called the *cortical layers*.

The *epidermis*, is a thin transparent membrane, which covers all the outside of the bark. It is pretty tough, is reproduced when rubbed off. In old trees it cracks and decays, and a new *epidermis* is formed. Hence, old trees have a rough surface.

The *parenchyma*, lies immediately below the epidermis; it is of a deep green color, very tender and succulent. Both in it, and the epidermis there are numberless interstices which have been compared to so many small bladders.

The *cortical layers*, form the innermost part of the bark, or that next the wood. They consist of several thin membranes, lying the one above the other; and their numbers appears to increase with the age of the plant.

The wood consists of concentric layers the number of which increases with the age of the part. Next the bark, the wood is much softer and whiter, and more juicy than the rest, and is called *alburnum* or *aubier*. The perfect wood is browner and harder, and the layers increase in density, the nearer they are to the centre.

The pith occupies the centre of the wood. It is a spongy body, containing numerous cells. In young shoots it is very succulent, but it becomes dry, as the plant advances, and finally disappears.

The leaves are attached to the branches of plants by short foot-stalks. The whole leaf is covered with the epidermis of the plant; containing many glands.

Plants are continually increasing in size. New matter is continually making its appearance in them, and this matter they must receive by some channel or other. Plants then require food as well as animals. Now, what is this food, and whence do they derive it? These questions can only be examined by an attentive survey of the substances which are contained in vegetables, and an examination of those substances which are necessary for their vegetation. This subject has already been treated of, under articles, *food of plants*, and *manure*. Some additional remarks shall now be given.

The analysis of vegetables affords but three essential principles, namely, *carbon, hydrogen and oxygen*, or charcoal, inflammable air, and pure air; and the proportions between these principals form all the shades, varieties and modifications, which the vegetable creation exhibits. Analysis further shews, that vegetable fibre when cleared of all extraneous matter, is scarcely any thing else than a congerics of carbon. But how is carbon conveyed into the body of the plant? It is well known, that pure carbon, such as is used for burning mixed with pure, dry earth, affords no nourishment to vegetables; and it is also known, that when dead plants are so far decomposed, that their texture is softened or destroyed, living vegetables imbibe all their constituent principles. This difference appears to arise from hence, that in the last case, the carbon remaining dissolved in the oily, resinous, or alkaline principle, the water, which has the property of disjoining these natural combinations, serves as a vehicle to convey them into the vegetable system. Air, heat, acids, and even rest alone, are sufficient to precipitate the carbon; so that, the agents proper to facilitate the concretion of the fibre, and to promote nutrition, are every where to be found. The principle of life, which governs and animates every organ, suitably divides this nutritive matter. It modifies the action of external agents, and presides over all the operations of this living laboratory. Hence it is easy to see, that hydrogen, carbon, or oxygen, predominates in the plant, according to the nature of the soil, exposure and climate, and according to the proportions in which these nutritive principles are presented.

Since the only part of plants which is contiguous to the soil is the root, and since the plant perishes when the root is pulled out of the ground, it is evident, that the food of plants must be imbibed by the roots. It is highly probable that the *great* changes, at best, which the food undergoes after absorption, are produced not in the roots, but in other parts of the plant. The sap, as Dr. Hales has shown us, ascends with such impetuosity from the cut end of a vine branch, that it supported a column of mercury 32¼ inches high. It is certain that the sap ascends through the wood, and not through the bark of the tree; for a plant continues to grow, even when stripped of a great part of its bark, which could not happen, if the sap ascended through the bark.

It is impossible to account for the motion of the sap in plants by capillary attraction, or by any mechanical or chemical principles whatever; we know indeed, that heat is an agent, but its influence cannot be owing to its dilating power; for unless the sap vessels of plants were furnished with valves, (and they have no valves) dilatation would rather retard than promote the ascent of the sap.

We must, therefore, ascribe it to some other cause; the vessels themselves must certainly act. Many philosophers have seen the necessity of this, and have accordingly ascribed the ascent of the sap to *irritability*. Saussure supposes that the sap enters the open mouths of the vessels, at the extremity of the roots; that these mouths then contract, and by that contraction propel the sap, pushing it up from the extremity of the root to the summit of the plant.

This irritable principle is seen in many plants, particularly in the *stamina* of the barberries, which are thrown into motion when touched.

Fall Feeding.

It is the practice of many, to let their cattle range the barren fields till the severe cold of winter drives them to the barn for shelter and food. But it is believed, farmers would find it to be for their interest, to keep their stock well fed all the year. In the fall, as the feed grows short, a little fodder from the barn to make up the lack obtained from the field, would keep old stock in flesh, and young in thrift, and turn to much better account than three times the expense in nursing old rack-of-bones in the winter and spring.

When an animal has taken almost enough food to satisfy its digestive powers, the want of the little which is lacking, occasions it to pine, and is a source of foolish loss to the owner, to say nothing of the cruelty to the animal. It would be of little consequence, and less comfort, for a man to take the first half of his dinner and omit the last. In short, there is nothing gained, but very much lost, by starving cattle or any animal, at any season of the year. It is feed more than breed, that make the animal, and the farmer finds his account in a proper attention to both. An animal should be kept growing without intermission, from its birth till its maturity—then to grace the meat barrel, or be continued in good flesh for the dairy or for labor. In no case should our eyes be pained with walking skeletons of cattle, horses, sheep or swine—or our ears with their bawling, whinnying, bleating and squealing.—*Cheshire Farmer.*

From the Boston Cultivator.

Dyspepsia in Hogs.

We often find hogs at this season of plenty, losing their appetites. This complaint would not be so disagreeable if it attacked them when we had but little food for them; but now when full harvests are coming in, and some of a perishable quality, to have hogs that have no stomachs is worse than to have no hogs.

Rotten wood has been recommended as a corrector of the acid in a swine's stomach, but charcoal is one of the best things that we have tried. We cannot tell the why, but hogs are fond of it, and will eat a portion of it daily when they can get it. It is insisted by some that there is much nourishment in charcoal, and that hogs have been known to live on it a great length of time. In a voyage from Europe a lost pig was found in a charcoal pit after some weeks, plump and hearty.

Capt. Riley, many years ago, in his travels in Africa, surprised us in his accounts of feeding camels on long journeys through the desert, with nothing of consequence but charcoal. Now, we do not vouch for the truth of these stories, but we know that some hogs love charcoal, and will fatten better for having that as one item of food or condiment. It may be pure fancy in the hog but not a wilder one than some of our own race manifest for the African complexion.

From Blands's Principles of Agriculture.

ON MANURES.

Specimens of rich soils analyzed.—How a standard of fertile proportions is to be obtained.—The permanent fertility of soils is by no means dependent alone on the vegetable or animal matter they contain.—A second confirmation of fresh air and fresh water constituting a principal part of the food of plants.—Strong analogy between the soil and the stomach of animals.—The sources of the food of plants available by man.—Manures, their several kinds.—Manure should be applied to land in good heart.—Three descriptions of fertility.

The manures employed to fertilize land are divisible into two kinds. The first are the mineral, the second are the vegetable and animal.

To place the argument, relative to this important part of agriculture, on a solid foundation, a few specimens of those soils that have been always esteemed by persons in their neighborhood, the best and most fertile, are laid before the reader, and comments afterwards made upon them.

First. Out of nineteen parts of an excellent wheat soil:

14 parts of silica, or large, small, and fine sand.
2 ——— lime, or carbonate of lime.
2 ——— alumina, or clay.
1 ——— vegetable and animal matter.

Second. Out of twenty-five parts of a turnep soil:

20 parts of silica.
2 ——— lime.
1 ——— clay.
2 ——— vegetable and animal matter.

Third. Out of ten parts of a fertile soil from Scotland:

3 parts of silica.
1 ——— lime.
5 ——— clay.
1 ——— vegetable and animal matter.

Fourth. Out of eight parts of a soil proper for wheat:

2 parts of silica.
3 ——— lime.
3 ——— clay.

These four specimens are sufficient to answer the purpose intended; for although there is no doubt as to the correctness of their analyses, since they have passed through the hands of Sir H. Davy, yet they will by no means serve to constitute a general scale of productive proportions; because a variety in the sub-soils, as well as a difference in the situation and climate, must ever defy the establishment of one only. However, the above will answer every reasonable purpose; but first, an opinion should be given as to a standard of fertile proportions which can be safely relied upon, and capable of practical adoption. It is this: to select the proportions from the best soils in the very neighborhood of the field to be improved, where the sub-soil and situation are similarly circumstanced, and the climate the same.

On viewing the proportions of silica, lime, clay, and vegetable and animal matter in the specimens selected, we are not a little surprised at the smallness of the quantity of the vegetable proportion, which on an average is only as 1 to 15 1-2: therefore, one directly decides that the permanent fertility of soils is by no means dependent alone on the vegetable share of matter they contain. This, however, must be proved; and to do so it will be necessary to estimate the produce of fertile lands, say, for the space of four years; and it will soon be found that the vegetable proportions alone is far too small in quantity, to insure such abundant crops as the following:

First year. Turneps that will fat ten sheep an acre.

Second year. Barley seven quarters; or oats, eight to ten quarters to the acre.

Third year. Beans four to six quarters to the acre; or, two good mowings of clover.

Fourth year. Wheat four to five quarters to the acre.

All this from one coat of manure of the vegetable kind, and applied at the fallow.

Now the usual coat of vegetable manure on the best regulated farms, never exceeds in general, and indeed, seldom equals, all the straw they even produce; because, when an agriculturist can manure a quarter of his lands each year, that is to say, return all the straw grown on each field every four years, it is as much as he is able to accomplish: and which quantity is found, from experience, amply sufficient, when conjoined with the fallow, to raise healthy and productive crops. This being the case and the fact, the more weighty and valuable part, the corn, is sold off from the lands as food for man and beast, except what may be consumed at home, which does not more than compensate for the loss of straw by thatching, by tithe taken in kind, and by waste, which will ever unavoidably occur on every farm under even the best management.

Whence, then, does the growing corn acquire the extra and necessary supply; since, as above shown, it cannot be from the vegetable manure carted on, because that would be obtaining a greater quantity from a less, which is absurd? Is it from the materials of the soil?* Yet, how can that be? for if we were to allow it to be the case, the fertile soil must, in the course of a few centuries, be reduced in quantity, and thus deprive future generations of the means of support, which is equally absurd; being contrary not only to present facts, but to the usual providences of the Supreme Being. And as regards present facts; the best soils in former times, are now, under proper management, equally as productive, if not more so, than then. The necessary supply of food must, however, come from somewhere: consequently we must look and examine around for the source of sources; and if we do look, it must be for that which is known to be necessary to plants, is within their reach, and of a nature inexhaustible.

They are then, as has been before shewn, and here again confirmed, the rain, the dews, and the air, all of which falling upon, and entering into a pulverized and fermenting soil during the process of the fallow, and thus expelling, as has been also before stated, the stale air and stale water which has been breathed by preceding plants; as gathered flowers in a glass of water on a mantel require the water to be changed every day or two, or they would droop, so a store of fresh air and fresh water, with renewed powers of fermentation, is acquired by the soil. This, likewise, takes place with fertile soils, and those in good heart at the time the crop is growing. The fresh water, in proportion as it is absorbed by the plants, gives place immediately to fresh air, or a vacuum must ensue: therefore, these two great advantages arrives when a shower falls, or the night's dew enters the fertile earth; and thus the rapid growth and improvement of vegetation in the growing period of the year, after every kindly shower is accounted for. These, conjoined with the influence of the sun, the seasons, and the innate powers of growing vegetables, aided no doubt in some degree by the principles of electricity, effect the formation of corn and fruit.

Relative to the expulsion of the stale air, &c., which is so important, it is in proportion to the quantity and the general diffusion of the rain throughout the soil, and this is of course in proportion to the state of pulverization, or adhesiveness of the particles of the soil, and its nearness to the last plowing. The strong analogy between the soil and the stomach of animals may not improperly be adduced as an illustration of the above argument. The soil does not of itself afford the means of support to the plant, but receives the food from the vegetable manure carted on, and from the rain, dews and air; so the stomach, by the animal's industry, in gathering or catching its food, merely prepares it by a decomposing process, which so far weakens the several affinities of the matter contained, as to be capable of being afterwards selected and taken up by the appropriate organization of the plant and the animal: and this is effected in proportion to the proper constitution and health of the soil, and the animal.

This constitution of the soil*, then, is of the first importance, for upon it depends the power of decomposing vegetable materials within itself, and of abstracting from the elements that come within its sphere the other requisites for the support of plants, all of which the soil retains with that gentle degree of combination which the selecting energies of vegetation are able to overcome.

Two sources, then, of food for plants are available by man*; the one, manure, carted upon the soil; the other the surrounding elements. Both these are had recourse to by the practical husbandman, sometimes alone, as in carting on the manure, or making a fallow; and sometimes conjoined, as when manuring the fallow.

Of the subject of this chapter—the manures.

Of the mineral kinds, are lime†, sand, burnt earth‡, clay, marl, hedge mould, or any other of the earthy or mineral substances, which upon inspection are all easily resolvable into the three principal ingredients of soils, namely, lime, sand and clay.

As respects the use of these mineral and earthy materials to improve soils, they can only act, in the first place, to strengthen the constitution and permanent digestive powers of the soil, by increasing the deficient proportions of either lime, sand or clay, and in this way add to the permanent fertility. If there be no deficiency, they can only prove of use to hasten the decay of vegetable matter, which is preserved in a strong balance of affinity by acids, and which lime has the power of neutralizing; or for the freshness occasioned to the soil by the application of those substances that have not been under the influence of growing vegetables before, at least not of corn. This fertilizing effect is, however, but transient, and the application of the materials often times expensive. In fact, this practice is precisely similar, only less effectual, to the benefit gardeners experience with their plants, when repotting them into fresh mould; and the agriculturist's cheapest and only practicable substitute, where the soil is properly constituted, is in one or two years well cultivated and vegetable-manured fallow.

Animal and vegetable manures next claim attention. These are, dead animal matter from the inhabitants of the land and sea, including bones, &c.; and the vegetable materials, of every denomination, found growing on the earth, some of which are plowed in green*, others are partly decomposed before they are applied. But the description most generally employed, is the straw of all corn and grass, trampled down in the farm yard by stock, and impregnated, more or less, with their excrement, which improves the strength of this kind of manure, in proportion to the nature and quantity of the food given.

Soot is a manure partaking of both the animal and vegetable; being composed of ammoniacal salts, and empyreumatic oil; with a great basis of charcoal, which are readily decomposed by the action of oxygen and water. This manure is generally applied as a top dressing, but the animal and vegetable manures are always plowed well into the soil of all arable lands, and laid on the surface of pastures.

Since the animal and vegetable manures are composed of the materials needed by growing plants, even to the very earths and salts, of which soils are said to be robbed, they must consequently afford the most valuable share of food to growing plants; but as the food, from its capability of being consumed by living vegetables, is continually diminishing, the consumption requires making up by periodical fresh applications.

Animal and vegetable manures being most generally employed for the enrichment of soils, it is useful to inquire what changes and consequences arise when they are thus devoted.

The usual method of application of farm-yard manure, is, by carting and spreading the materials on the surface of a field in an incipient state of decay, and then burying them in with the plow.

Experience proves that the decomposition of vegetable and animal manure is in proportion to the state of culture of the land to which it is given. If the field be in an exhausted state, and one plowing follows just to bury the manure; its decomposition and chemical and mechanical union with the soil will be very slow, in consequence of the undestroyed strong balance of affinities of the impoverished soil.

If the previous reasoning holds good, manure so employed is in part wasted, instead of being made the most of, as it was when put early on a fallow; because the manure when buried, lies in contact for a whole year, with precisely the same surfaces of the soil, and being in lumps, its sphere of contact must be proportionably small. The consequence is, that less fermentation takes place than what ought to do, and a proportion of the manure will actually escape in gas, from its own fermentation after the saturation of the contiguous particles of the soil has been completed, and the absence of more fresh particles to arrest it. If plants are growing above it, they are injured from the apoplexy and lodging of the corn that follows; by receiving this food too readily, and not sufficiently diluted, if I may be allowed this expression. This is the reason why fish or yard manure is so soon gone when put on a field to be immediately cropped, and is not cultivated previously.

Stubbles plowed in, will remain with very little decay for a whole year in poor and half cultivated lands, from the existence of the strong balance of affinities, resulting from the exposed particles being saturated, and no new ones brought up to the sun, air, &c.; therefore, no fresh combinations or fermentation can take place.—Whereas, if stubbles are plowed in preparatory to a fallow, so as to have the benefit of several successive plowings and harrowings, nearly, or quite the whole of the stubble will be decomposed and blended with the soil, and be rendered a valuable manure, by the reciprocal fermentation of the land and stubble. The former, set into activity by the cultivation; the latter, from its easy decompositions soon feeling the effect of the former, when they act conjointly in their general fermentative and fertilizing process.

When a crop is to be principally benefitted by the manure laid on a field with one plowing only, the manure should be rich, and in a forward state of decay; because its decay, when in a long state, will be unassisted by cultivation, and the affinities of the particles of the soil will be too strong in their balance to expedite the process. The manure, in this case, will require to be brought into that state of decay before it is applied, which will ensure its own fermentation afterwards without aid from cultivation. And then, like shavings or small wood to a nearly extinguished fire, a partial overthrow of the strong balance of affinities of the soil will be produced, and thus far restore its fertility.

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* Pure silica, lime, and clay, are in themselves barren; or in a state of perfect rest or balance of affinities. But when they are broken into powder, put together, and well mixed with a portion of water, their respective affinities immediately become active; fermentation ensues: is capable of increase and continuance by cultivation, especially when joined with the addition and mixture of dead animal and vegetable substances, which is still facilitated and advanced, like every other chemical process, by heat.

The individual materials, silicia, lime, and clay, are not decomposed, the heat to which they are subject being insufficient; but they, by their contiguity, exert their chemical influences on each other to a certain degree, which every day's experience proves sufficient to act with the necessary chemical effect on the more easily decomposible substances of dead animals and vegetables, on air and water, as well as stimulating the energies of the roots of plants.

Fluoric acid is not found in cultivated soils: and the silex which is detected in the straw of wheat, oats and barley, is obtained in the easiest way by nature, that is to say, from the straw of those plants put on as manure.

EXAMPLES RELATIVE TO SILICIA, ETC.

Now a piece of sugar is by itself in a quiescant state; and so is a cup of water or tea; but when the former is put into either of the latter, its solution instantly follows.

Muriatic acid and marble; sulphuric acid and spirits of turpentine; these, if kept seperate, would continue at perfect rest forever; but when brought respectively together, a mutual incorporation takes place, with a complete explosion of the two latter.

Take a flint and steel, and put them into a quantity of gunpowder, the balance of their affinities will still remain undisturbed; let but one spark only be elicited from the two hard substances, and every person instantly anticipates the result.

More instances might be adduced; the above are, however, sufficient to prove, that, notwithstanding the apparent quietude of each pure and simple compound substance, when saturated and separated, yet, how speedily their affinities are awakened into life by being brought in contact with each other, having heat, and air, and moisture as auxiliaries.

* One mark of the proper constitution of a soil is, when it neither holds moisture for too long nor too short a time, and is not easily dissolved by a shower falling upon it, so as to form a crust upon the surface impenetrable to air.

This constitution of the soil is, as has been before observed, improved, strengthened, and rendered healthy by cultivation, and by cultivation only; since manure fails of effecting that which cultivation never does.—Indeed, manure placed upon a field whose cultivation has been neglected, and chemical powers consequently weak, precisely resembles a full meal that is taken into a debilitated stomach, when disease and langor follow, rather than health and strength.

* In fact, there are but these two sources, and which two possesses the true and only food for plants; the rest of the fertility depending on the proper constitution of the soil, and requisite cultivation, to keep the same in health.

† Chalk, the carbonate of lime, is known to be a great improver of the constitution of stiff clays, and hot gravels, being put on such lands in the proportion of from twenty to twenty-five cubic yards, or common cart loads to an acre.

‡ The compost of burnt earth and turf, is found to ensure a crop of turneps on most soils, therefore is valuable. And, there can be no question, would prove more useful than lime, where no stronger acid exists.

* The plowing in of green crops, as tares, buck-wheat, or rape upon poor and distant fields, is an admirable practice; and is founded on taking the advantage, through the aid of cultivation, of those vegetables of strong and hardy natures, and obliging them to contribute the store they had collected from the elements around them, to the support, by their decay, of plants of a more useful and tender species.

But when manuring in this way, it is at the expense of the manure itself, by the loss that necessarily ensues, whilst the heap lies fermenting in the mix-hill, in order to its being reduced to the requisite state of decay; which decay, or rather calcination, causes a portion of its best elements and quantity to be evolved to the winds. Again, when the manure is laid on only before the last plowing, even if it be a fallow, and a crop then sown, the manure is found distributed in the soil more or less in lumps. The young and perhaps delicate plants, before they reach the manure with their fibres, must be some time, and during the interval many perish*. Such is the case with young turneps, which, when they do reach the manure, find the same in masses, and from its very light and porous nature, not so well adapted for the roots to extract benefit from, as if blended with, or more divided in the soil.

The above circumstances lead to the conclusion, that both in the garden and in the field, the best time and manner of applying vegetable and animal manures, indeed manures of every description, is on a fallow; and to cart and spread them on the land in the autumn, winter or spring, according to their nature and circumstances; when there will be sufficient time to mechanically mix them well with the soil, by the successive plowings and harrowings.

The only exception that can be adduced is on stiff, clayey lands, which might have the coat of manure applied at twice to keep it the more open; as once at the fallow being half the quantity, and once between, as for beans or peas.

By the manure, or manures, being so early applied, the particles of the soil are more quickly and generally divided, therefore the sooner and better able to admit the fresh air, rain and dews; thus favoring their decomposition and union with the soil; and likewise the same of the manures, which, uniting in their effects, co-operate with the plow most powerfully in the general increase of fermentation and pulverization. The thermometer will always denote an increase of temperature when inserted into the soil about three inches, after recent cultivation, also after recent manuring; and when these are combined, the rise in the instrument will be found proportionally the higher. Under these favorable facts, it is not to be wondered at that the long strawey manure becomes reduced to a short fine state, and very generally distributed by the after cultivation.

Now, when any delicate seeds are sown on a field treated as proposed, they are assisted in their infant vegetation by the increased native powers of fermentation in the early manured and well pulverized soil.—Their first roots have the great advantage of the necessary food being immediately contiguous to them, and in that state of delicate suspension, or balance of their affinities, that the least vegetative effort of the plants is sufficient to overthrow, and in consequence such a tilth is most favorable to their unfolding, their future vigor, and their arriving at maturity perfect.

If the reasoning employed be correct, this favorable conclusion may be drawn, that the early application of vegetable, animal, and other manures to the fallow, contributes in a multiplied degree to the fertilizing the same, by the mechanical as well as chemical assistance which they impart to the power the soil has of combining with, and decomposing air and water, with, at the same time, their pulverizing effects; which objects could not be gained, if the manures were only added before the last plowing, and, by this practice also, the four following points are gained. The first, considerable less loss in the manure or manures, by their fermenting in the soil, instead of in the mix-hill. The second, the soil deriving more fertility by the early application of the manures than when put on late, and at no expense. The third, the manures being carted on the land early, less loss ensues from evaporation, the sun having then less power. And the fourth, that if any kneading should take place during the carting, there is time afterwards to get the better of the evil, with having the manure or manures themselves to assist in the husbandman's efforts.

The application of the same kind of manure to plants or trees that are occupiers of the soil for more than one year, as hops, the artificial and natural grasses, fruit, &c., is not always advantageous, no do the fields prove so productive as might be expected from the pains bestowed.

The advantage of variety is, greater fermentation; therefore, greater benefit from the air and rains. For the same manure acts on the soil, particularly if not aided by cultivation, like the same medicine or the same air upon the human system, which medicine or air is found to lose its best effect after a too long repetition. In fact, the soil as well as the body, becomes saturated or neutralized. This is not the case with arable land, because of the variety of the crops, to say nothing of the cultivation, particularly of the fallow, which is the most powerful of all; and thus admits of the same kind of manure being applied periodically for ever with the same success.

Before the subject relating to manures is brought to a conclusion, it will be proper to observe, that an excess in manuring, particularly when put on raw for the coming crop, is as injurious as when land is poor from the want of manure. For of fertility there may be named three descriptions. As,

Extravagant fertility.
Productive fertility.
Apoplectic fertility.

The first is, when so early and rapid a decomposition takes place, that the plants thrive too fast in their youth, and then towards harvest have nearly or quite done growing, without perfecting their seeds. This is commonly known by the name of crops, being winter, or spring, proud, and summer poor.

On examining the stalks and ribbons, they will be found to be covered with the fungi species, which is owing to a sudden cessation of the supply of the sap; the healthy secretions are in consequence at an end, fermentation of the juices succeeds; a gas is then formed, which bursts the vessels, and the fungi grow.

The cause of this extravagant fertility is this: that the corn was sown upon fresh or recently manured land, the land being in itself poor from exhaustion: the result is, that the corn receives its food directly from the manure, in the first instance, of course in an unselected, undiluted state, instead of disengaging it from the soil, with which the particles of the manure had been combined by previous good cultivation*: for the fresh manure decays faster, and thus yields and indeed rather forces itself upon the plants beyond what they naturally and immediately require. And being aided in its decomposition by the vegetative powers of the corn, a too rapid growth is at first brought on. Then, as the plants had been induced to commence their structure upon a large scale, by the abundance of the materials afforded them, they require a proportioned greater quantity of the same materials to maintain and complete what they had begun, but from the two-fold cause, of an early extravagance, and large structure, they find those materials deficient at the very time when wanted the most—the forming and completing of the seed. The soil, all the time, from its poverty, or strong balance of affinities, effects but little towards the growth of the plants; therefore, out of the two sources of fertility, namely, manure and good cultivation, the one most important, meaning the latter, having been neglected, fails of its necessary supply, and disease of the plant takes place accordingly*.

The cause of productive fertility is owing to a regular decomposition going forward within the reach of the roots of the growing plants, when food is yielded sufficiently fast to meet all their necessary demands, and continue thus from the beginning to the end, and a well matured crop is formed, yielding bright straw, a handsome plump sample, and in quantity proportioned to the native fertility of the land. This favorable result is to be attributed to the crop being able to disengage its food from the particles of the soil, with which it has been combined by a previous good cultivation and exposure, or fallow process. The beneficial consequence of which, is, that the plants have to exert their own decomposing and selecting energies to obtain the food they require, and therefore, take up no more than what their healthy vegetation demands; instead, as in the former case, of having their vegetation impelled on, as it were, by the too rapid and overwhelming self-decomposition of the manure.

The cause of the apoplectic fertility is owing to a too rapid decomposition taking place throughout the growth of the plants, as is the case if a few clevels of grain happen to fall upon and take root in a dung mix-hill. The plants are seen to flourish away with uncommon vigor, as if in a state of intoxication, producing ribbon by wholesale; and if standing in masses, are soon beaten down by the winds and rain, when, the straw becoming bent the sap is then more or less impeded in its flow through the vessels, which are already overcharged with half concocted food, forced into circulation by the too rapid decay of the manure beneath; the consequence is the bursting of some of the vessels, when a nidus is formed for the fungi species, in the form of red rust, &c., and if this corn ever ripens, a lean half formed clevel is the only produce.

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* By the experience of the best gardeners, raw manure is never found so healthy for plants as when it has been digested and blended with the soil by a previous fermentation and cultivation; because the materials of the raw manure are forced, as it were, upon the plants in an unselected, undiluted, crude state; thus favoring disease, apoplexy, for extravagant fertility.

* Very many proofs might be adduced in support, both by gardeners and agriculturists; for example, a field of good land was manured and sown with wheat, at the proper time; its appearance during winter, spring, and summer, was very strong; but when reaped at harvest, the straw was found very soft, the grain of little value and short in produce. The owner of the field was recommended to fallow it, although he himself conceived the field to be sufficiently fertile, as not to require such tillage: however, he had recourse to the fallow, and then sowed wheat again. The poduce after the fallow treatment, amply repaid the expense, being more than six quarters upon the acre; a proof of the superiority of cultivation, over a coat of manure without it.

The process of fallowing had mixed and combined the manure with the soil, at the same time restored its chemical powers, and therefore the succeeding crop of wheat drew from its resources; now rendered healthy, in proportion as it required the food.

* Corn sown upon scarified ground, and compared with the same species grown on the same land plowed, will be found, when examined at harvest, to have its straw considerably softer and the grain not so abundant in produce, either in weight or measure; because the plants of the corn were not so well able to effect the requisite secretions for the composition of the straw, or the quantity of all the materials to form the grain, as where the roots could penetrate the greater depth into a more recently cultivated soil, as when after the operation of the plow.

From the Farmers' Register.

To Gideon B. Smith, Esq.:

Sir—Among the many thousands of your countrymen who acknowledge your early, long continued, disinterested, and efficient services in urging and promoting the culture silk in the United States—especially by providing the best means, by pointing out the peculiar value of the Morus multicaulis, and inducing the propagation and extensive cultivation of that new and valuable tree—a few persons have united to provide, by subscription, some testimonial of their gratitude, and sense of your merit in this respect.

The duty of receiving and disbursing the sum subscribed was confided to the undersigned; and they have the gratification of now presenting it to you. They request its acceptance, not for the value of its amount, but for its object. A part of the fund has been expended to provide a tea and coffee set of plate, richly chased, and ornamented with suitable devices and inscriptions, and which will serve as a visible and permanent testimonial of the feelings and opinions of the contributors.

Edmund Ruffin,
Thos. S. Pleasants,
John H. Cocke,
} *Committee.*

Virginia, September, 1839.

Answer.

Baltimore, Sept. 25, 1839.

Gentlemen: I have received your very kind letter of September, 1839, with the accompanying testimonial of the feelings of the contributors, consisting of a most splendid coffee and tea set of silver plate. I unable to express my feelings on this occasion; feelings, I assure you, of unmixed gratification, and which are incapable of representation in words. I thank you and the gentlemen associated with you in this testimnonial, not only for the matter, invaluable as it is, but, more so, for the manner of it. From the beginning to the present time, I have had but one single object in view; the good of my country, my whole country, and nothing but my country; and I feel doubly gratified that, however humble my works may have been, my motives have been duly appreciated. It is now something upwards of thirteen years, since I have been devoted to the introduction of the silk culture in the United States. I saw, in 1826, that it could be made a profitable, and of course a valuable object of attention in the United States, even with the then known species of mulberry, *morus alba*. How much more certain I felt of its practicability in 1830, when I ascertained the valuable properties of the *Morus multicaulis*, I leave you to judge. I pursued the subject with all my heart, and all my might, without ever once thinking whether I was to benefit myself in the smallest degree or not: from first to last I never once thought of self; and when I saw others making fortunes, it never occurred to me that I had omitted an opportunity of doing the same. Your most splendid *testimonial*, therefore, invaluable in itself, is still more precious to my feelings, from its coming to me unexpected and unsought for.

Be pleased to accept my most grateful thanks, and also to convey the same to your associates, with the assurance of continuation of my exertions in the good cause, now rendered more than ever dear to me.

With high respect, gentlemen,

I am yours, Gideon B. Smith.

To Edmund Ruffin, Esq., Thos. S. Pleasants, John H. Cocke, *Committee.*

Inscription on the Plate.

TO GIDEON B. SMITH,

In testimony of his early, disinterested, and efficient services in promoting the culture of silk in the United States; and especially in making known the peculiar value of the *Morus multicaulis*, as the most important means, and inducing its extensive cultivation and use.

From the American Farmer.

Exhaustion of Lands—Means of Improvement.

I was called by business some few weeks since into that part of Anne Arundel County, which is bounded by the Patapsco and Chesapeake bay, a distance from Baltimore about seventeen or eighteen miles. And although I was prepared to find a thin soil, I had no idea of realizing, to the extent which I did, the exhausting influence of improvement culture. In the course of my ride I called at a farm which some thirty years ago was remarkable for its production of the finest quality of Maryland tobacco as for the hospitality of its then proprietor, and to my surprise I found that those fields which, in times gone by, gladdened the eye with the richest and most luxuriant vegetable growths, were, by the exhausting system pursued by its present occupants, converted into barren sands. The land though light and sandy, is what is aptly termed by farmers, kind land, generously repaying the cultivator for whatever in the shape of manure he may put on it; but from being subjected for upwards of twenty years to the robbing policy of taking all out and putting nothing in, has become a perfect personification of Pharoah. That you and your readers may comprehend the system of farming pursued, I will relate the form of *dialogue*, the conversation I held with the principal tenant, who occupies the *great house*, as the Mansion used to be called in those good old days of Maryland, before *reform* in its various hues had driven hospitality from her borders. I found the tenant in his rye-field, in the midst of his harvest. I mention this as it will serve to explain the course of our conversation.

Writer.—Good day, Sir.

Tenant.—How do you do Sir?

Writer.—I am well, I thank you. Do not stop from your labors on my account. I was riding by, and as I saw you busy at harvest, curiosity led me to halt to look at your crop.

Tenant.—It is hardly worth looking at—it's a sorry crop—the land's worn out.

Writer.—How many bushels to the acre do you expect to reap? Five—three?

Tenant.—Oh no: not more than *one*.

Writer.—Why that will not pay you for for the trouble of putting in your seed, much less for the price of seed, the putting of it in, and cost of harvesting, threshing, &c.

Tenant.—No: but then the ground is so poor that it will not bear any other crop: it is too thin for oats or corn.

Writer.—Do you manure?

Tenant.—No! we can't afford to manure any thing but our marketing.

Writer.—How long have you lived on this farm?

Tenant.—Twenty years.

Writer.—And have you during that period manured no other part of your place than your truck patches?

Tenant.—No. I can't afford to manure any other part. I make but *little*, and it would cost too much to buy: it's rented land.

Writer.—My good sir, if you were to consult your own interest, I think you would buy a few hundred bushels of ashes. It would increase your products tenfold, if applied at the rate of 100 bushels to the acre: the field you are now reaping, which you say you expect will yield *one* bushel to the acre, would yield you from ten to twenty, so that you would save the expense of plowing, harrowing, putting in and harvesting *nine* or nineteen, as the case might be, which with the cost of the seeds, which would be thereby saved, would amount to the value of the ashes.

Tenant.—Oh, the seed don't cost much; I only sow a *peck* to the acre: indeed not so much—only half a bushel to thirty thousand corn hills.

Writer.—Less than a peck to an acre. Why do you not sow more? In my part of the country we sow from a bushel to five pecks to the acre.

Tenant.—See there, (pointing to a spot where about half a dozen stalks stood on a square foot.) see how short the heads are—it's so thick that there is not strength enough in the ground to fill the heads. If I was to sow more than I do, I should make nothing but straw, and plaguy little of that.

Writer.—The stalks and heads are short enough in all conscience throughout your field; but there is no mystery in that; for how can you expect the ground to yield any thing when you give it nothing to sustain vegetable life upon. If you were to work your horses continually and give them nothing to eat, do you suppose that they could perform your work?

Tenant.—No; but horses are not land.

Writer.—True, they are not land; but the soil requires sustenance just as much as beasts of burthen. The *roots of plants* have mouths as well as men, horses, or cattle; and although they perform the operation in another way, still they do eat, and if the wherewithal be not provided for their accommodation, a stinted growth, or, indeed, no growth at all, is the inevitable consequence. The bullock does not more require food to encourage fat, than do all the vegetable family food to enable them to grow in health and vigor; and if we desire that the earth should continue in good tilth, it is indispensably necessary that we supply it with proper materials for forming vegetable food. We must in some shape or other return to it what it gives out to the growing crops.

Tenant.—There seems to be reason in what you say; but it cannot be expected that I, who rent by the *year*, should lay out my money to buy manure to improve my landlord's land, who may, the very moment I get his land in good order, turn me off.

Writer.—Though you were sure of being turned off the first year, your own interest, as I have before remarked, would dictate the propriety of manuring, as by so doing you would ensure to yourself ten to twenty times the quantity of product you now receive. But although you have stated a *probable* case, I think your landlord would not be so blind as to *punish* you for *improving* his land. Can you not, however, get a lease for a term of years?

Tenant.—Yes, I suppose I might; but then I do not wish to bind myself to remain longer than it is my interest to do so, and, therefore, I cannot entertain the idea of buying ashes or any other kind of manure.

Writer.—Well then, if you will not *buy*, surely you will *use* the manure that is on the place.

Tenant.—So I do—it takes all that my cows and horses make for my market patches.

Writer.—There are other manures with which you might by a proper application of it, soon render even this almost barren field productive.

Tenant.—Where is it? I should like to know where to find it.

Writer.—The Almighty, in his kindness, daily provides you with it. Every full tide brings you a supply of sea-weed, the which if you will husband and put upon your ground, instead of letting each receding tide carry it away, you may in a short time render each of your fields *rich*. How far is the nearest *deposite* to your part of the farm?

Tenant.—About a mile; but then it is too troublesome to *haul*.

Writer.—Have none of your neighbors used it, and if so, what have been its effects?

Tenant.—Yes, several have done so, and increased their crops; but then they have put it on their own lands.

Writer.—You would, to be sure, have greater inducements, if the land was your own, to haul and put on the sea-weed; but then as you would materially profit by its application, and it will cost you nothing but the labor of hauling, you should not be so selfish as to omit a duty to yourself and family, merely because it would benefit your landlord. The man who is actuated by such motives—who acts upon such principles—is truly a most shortsighted mortal; and to use a trite though true adage, "cuts off his nose to spite his face." What was your object in renting this *farm?* Was it not to make a living for your family and self—to better your and their condition? If you answer me in candor, you must do so affirmatively. Why not then avail yourself of all its advantages. You might in one month haul as much sea-weed as would enable you to manure ten acres with a single horse and cart, and those ten acres would yield you more than thirty do now—so that you would save all the labor of cultivating the difference, and if you were so disposed, you might, by the enhanced profits, increase your working force and stock, and by extending your farming operations, thus profitably, accumulate wealth enough to buy you a snug farm of your own.

Tenant.—There really appears to be reason in what you say, and I will try this fall what I can do on ten acres with sea-weed.

Writer.—Try this wretched rye-field. There appears to me to be about ten acres in it: put on it three hundred loads of the sea-weed this fall, and although I am no prophet, I think I may venture upon this prophecy; it will next year yield you ten or twenty bushels of rye to the acre, as I have before said. Should it do so, you will not I am sure, hesitate to go on and cover the balance of your fields with this excellent fertilizer.

There is another plan which you may adopt. Sow buckwheat, and when it is in blossom plow it in. To increase its growth, strew a bushel of plaster to the acre. This is a cheap, economical, and effectual plan of restoring poor lands.

Tenant.—I will try the *sea-weed*, and thank you for the suggestion; but it is too troublesome to think of sowing and plowing in buckwheat.

Here our conversation ended, and bidding the tenant good by, I wended my way homewards, fully impressed with the belief, that landlords when they rent their farms, should stipulate for the improvement of their lands, by providing that the tenants should manure a certain number of acres every year. Those whose lands are washed by navigable waters, where sea-weed is periodically washed in, might require that the tenant should collect and haul out a certain number of loads each year. Those whose lands have salt marshels, might stipulate for the hauling out upon the grounds under cultivation, annually, a given number of loads of marsh mud—where neither of those resources exist, the tenant should be required to sow a given number of acres of buckwheat, to be plowed in, or an equal number of acres of what would be better—clover. Without some such provident means be adopted, it is evident to me that all our lands which are tenanted out, must, in a few years, become entirely exhausted; and as an inducement to the tenants to come into such stipulation, I would suggest, that, instead of renting by the year, all farms should be leased for a term of years. To all proprietors of land I will remark, that in the management of their farms, they may, very advantageously, avail themselves of the hints here thrownout to improve those which they may occupy themselves.

IMPROVER.

Lucerne.

A writer in the American Farmer, of Feb. 4, 1825, says: "Last spring I sowed one acre with a half bushel of spring barley and 16 lbs. of Lucerne seed, and another acre with the same quantity of seed, and a half bushel of winter rye. The object in sowing grain is to serve as a nurse to the young grass against the heat of the scorching sun. The barley quickly grew up so as to protect the young grass, and being thin did not smother it. The rye being thin, branched out, and for some time did not shoot up like the barley. The grain of the barley was heavy and fine, and the produce was full half a crop; the rye produced no grain. I directed the barley to be mown high, in order that the young grass might be injured as little as possible. The Lucerne on both acres was mown about the last of August; by the last of September it was knee high, and my overseer wanted to mow it again, but I forbid him, thinking it would check the growth of the roots, and prevent the grass putting up so vigorously in the spring.

The sooner it is sown in the spring the better, provided the ground is dry and in good order. The land should be cultivated the preceding year in such manner as to destroy the weeds, as they are injurious to the young Lucerne."

From the Germantown Telegraph.

PEACH TREES.

About three years ago, I wrote an article upon this subject for your paper, and recommended coal ashes to be placed about the trees for their preservation. So fully persuaded was I of their usefulness in giving vigor to the tree and preserving it from the attacks of worms, that in the spring of 1828, I applied it again to my trees but the results were not so favorable as I anticipated. A hole large enough to contain about three shovels full, was dug around the roots, and this filled up with ashes which were perfectly dry, and the trees were afterwards white washed. If the ashes had been damp, the results might have been different. This was done just as the buds were bursting. The consequence was that there appeared to be a check or absorption of sap. The blossoms were slow in opening, and remained for a long time upon the trees, but notwithstanding I had an abundant crop of fine fruit. The trees however were manifestly injured, but as I was making an experiment, I determined to allow the ashes to remain to see the effect during this season. They continued to decline during this summmer and had much dead wood upon them. Their leaves were yellow, they bore no fruit, and I was firmly convinced that I would not have a living tree next spring if I persisted in my experiment. I therefore about the first of August, had the ashes carefully removed, and the worms destroyed. The holes were then filled up with short hog manure, and this covered up with earth. The beneficial results are very manifest. The foliage is now rapidly changing its sickly yellow color for a luxurious growth of dark green, and I feel confident from present indications, that most of them will soon be restored to vigorous health.

The peach is so delicious a fruit, and the cultivation of it has been attended with so many difficulties in this county, that I regard any thing which may be calculated to remove them, as too important to be withheld from the community, and as I am satisfied that the application of manure to the root will in most instances restore a sickly tree to health when the trunk is not too much injured by worms or other causes, I recommend those whose trees may require it, to adopt the means which I think I have successfully used. PENN.

We think *wood* ashes placed about the roots of a peach tree, useful to kill the grass, and as having a tendency to keep away the worms. The proper time to apply ashes or sand about the tree is when the fly is depositing her eggs on the body at the roots. This is in July or August. We have never tried coal ashes and cannot judge of their virtues.

From the American Farmer.

Ice Houses.

A correspondent, who acknowledges himself a "*cheerful*" subscriber, and a sincere well wisher to the cause we advocate, and whom *we* acknowledge a *punctual* one, asks us for the "most simple yet most successfull construction of an ice house"—we have turned over the files of the old "American Farmer," and find in vol. 13, page 286, the following description of one, which we think comes up to the requirement of our respected friend.—It was republished from the N. E. Farmer:—

"I have an ice house, which is built on a gravelly knoll. I dug a pit, say from eight to twelve inches lager than I intended the frame. I dug it about eight feet below the surface, and with the gravel, which came out of the pit, I raised it about two feet. My frame was ten feet long, eight feet wide and ten feet deep. I planked it up with two inch hemlock planks, and filled the space on the outside, which was from eight to twelve inches, with tan, and rammed it down as fast as I planked it up till I came to the top of the frame. I then put on rafters or joists four or five inches square, and lined them and filled the space with tan, as tight as it could be rammed in, and then shingled the roof. The ends were boarded up, with a door at each end, for the convenience of filling the house. My house holds about six cords. I fill it with square pieces of ice, as close as I can pack them. I put nothing between the layers of ice, nor on the sides, nor do I break any in pieces to fill up the spaces, except broken pieces that will not make good stowage. I have filled the house to the top of the frame. I then fill the roof with shavings, and ram them down as tight as I can. I have had no difficulty in keeping my ice, and have spared as much as we have used, and have often ice in the house, when we clear it for filling afresh. I think shavings are better than straw, as they will not rot so soon by the dampness. I go to the ice house at any time of the day, when ice is wanted. My ice house has no drains to it. Under the plank at bottom I rounded out a place lengthwise, about a foot deep, sloping towards the middle like an egg, cut in two lengthwise, which I think is sufficient to receive all the water that will run from the ice."

Beets.

A farmer of Dutchess co. N. Y. has sent the editor of the Poughkeepsie Telegraph samples of sugar beets and mangel wurtzell, with a memorandum stating that his crop of beets then harvesting, would amount to from 1000 to 1200 bushels, from less than an acre of land, and that the average cost of raising them will not exceed 6 cents per bushel. The 6 largest of the sugar beets weighed 67 lbs. the heaviest one 13½ lbs.—*American Farmer.*

Ladies or gentlemen who make excuses for being found *at work*, have need of an excuse for their *acknowledged indolenee.*

Morus Multicaulis Trees.

THE subscriber has now on hand for sale, well secured in a Cellar, a quantity of genuine Morus Multicaulis Trees, which he will sell at the market prices, proportioned to their size. Application by letter, post paid, or a call at his residence, will receive prompt attention. nov23 GEO. W. ROBINSON.

Baldswinville, Onondaga Co. N. Y. Nov. 18, 1839.

A Rare Chance.

FOR SALE.—A Partner wishing to withdraw from an old established AGRICULTURAL IMPLEMENT AND SEED WARE-HOUSE having a good run of country custom, would be willing to dispose of his interest on liberal terms, as he is about engaging in other pursuits. To a person wishing to engage in a respectable and profitable business, having some ready capital, it is an opportunity rarely to be met with. A liberal credit will be given on most of the purchase money, if properly secured. Any communications addressed "LA FAYETTE," New-York City, will be treated strictly confidential. November 13, 1839–w4t

Morus Multicaulis and Morettii.

ELLWANGER & ROGERS are prepared to make contracts to any amount, for genuine Morus Multicaulis and Morus Morettii; the Morrettii are hardy, and will stand the winter in this country.

Any persons living at a distance and wishing to purchase a large quantity to sell again, shall be supplied at the very lowest wholesale prices so as to admit of their selling at the same prices as other persons, and make a very handsome profit. Also Silk Worms Eggs.

E. & R will supply orders to any extent for every kind of Fruit & Ornamental Trees, Shrubs, Vines, Hardy Plants, Bulbous Roots, Greenhouse or Parlor Plants, &c. &c.

September and October is the time for planting Bulbous Roots in the open ground, such as Tulips, &c. of which they have a very fine collection for sale. Cash paid for Grass Seed, Plum, Peach Stones, and Apple Pips. Greenhouse corner of Buffalo and Sophia-streets Rochester, N. Y. sept14-wtf

Morus Multicaulis.

THE subscriber is prepared to furnish Morus Multicaulis (Mulberry) Trees, in large or small quantities, delivered any time this fall after the first of October. The trees will be raised from Roots, Layers and Cuttings, of thrifty growth and matured wood, and will be sold at prices in proportion to their size. October and November are the most favorable months to transport them to the Western States, or into Canada, or in any direction where they must be sent a distance by water communication. All orders from a distance, by mail, should be sent early, (post paid,) addressed to

E. H. MIX,

July 27, 1839.–w6m Avon, N. Y.

To the Farmers of Monroe.

The Farmers of Monroe, who wish to improve their breed of Hogs, are respectfully requested to call at the Clinton House Stables, in the city of Rochester, where they will find a *pure blooded Berkshire Boar*, recently obtained from one of the best breeders in Albany.—Such an opportunity, it is believed, has never before been placed within the reach of our farmers, and it is to be hopod that they will appreciate and avail themselves of the privilege thus offered, as they can by this means, at a trifling expense, effect a highly valuable and permanent improvement in their breeds of swine. A view of *Peter Berkshire*, which will cost nothing, will, however, afford the most convincing proof of the benefits to be derived from the proposed cross. He will remain at the above place for some weeks for the benefit of the public, after which he will be removed to the farm of his public spirited owner in Brighton.

Rochester, November 1, 1839.–w5t.m2t

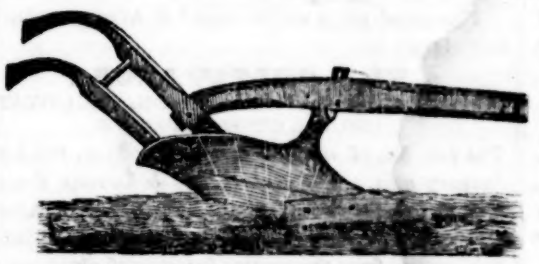
Farms for Sale.

THE subscriber offers for sale, a Farm containing 480 acres, situated in the town of Collins, Erie County, 2½ miles east of the village of Lodi, and 24 miles south of the city of Buffalo. The surface is undulating; soil principally a deep sandy loam, well adapted to grain or grass, admirably well watered by durable springs of pure water. 170 acres under good improvement, with commodious buildings. The timber land is covered with a heavy growth of Oak, Chestnut, Hemlock, White Wood, Cucumber, White Ash, Beach, Maple, and a sprinkling of Pine.

Twenty-five per cent of the purchase money will be required down, a liberal credit given for the residue.

Also—a farm containing 450 acres situated in the town of New Albion in the County of Cattaraugus, 2½ miles from the village of Waverly, and 11 miles south of Lodi. About 100 acres under improvement, and well watered. The timber is principally Beach, Maple, Elm, Bass Wood, White Ash and Butternut. This farm is peculiarly adapted to grazing. JOSEPH PLUMB

Lodi, Erie County, September 20, 1839. oct5w8tm2t



Whiting's Wisconsin Prairie Plow.

THE INVENTOR of this Plow, by a few years experience on the Western Prairies, in the use of the common Plow, has discovered the cause why earth so generally adheres to the mold-board. It is this;—The mold board is so short and crooked, both ways, that a hollow is formed that catches the dirt as the sward passes. Where there is a plain, flat surface, more nearly resembling a WEDGE, no earth remains. In this Plow, the wedge principle is adopted, and from the point to the heel of the board, a perfectly straight line is formed; so that a straight edge, laid on lengthwise, or crosswise, as in the cut represented, will touch the mold-board the whole distance, with a gradual wind, to turn the sward; thus producing a uniform action on the whole surface of the board, without breaking the sward. Then why not better in any soil?

State or county rights, for making and vending this Plow, may be had on application to the subscriber, at Racine, Wisconsin Ter.

E G WHITING.

N B Patterns for the various sizes furnished by the Patentee.

The following certificate from the Society of Shakers, at Watervliet, accompanied by an order for four plows, will show the estimation in which this plow is held by that intelligent community.

Watervliet, Shaker-Village, Sept 13, 1839

We hereby certify that we have tried the Wisconsin Prairie Plow, as exhibited to us for trial, by Ebenezer G. Whiting, and we hesitate not in giving it the preference to any thing we have ever seen of the plow kind, both for ease and utility.

CHANCEY COPLEY, D A BUCKINGHAM,
BENJAMIN TRAIN, WM THRASHER.

The following is the report of the Judges, appointed by the Mechanics' Literary Association, at the Fair of the Mechanics' of Western New York, held at Rochester, Oct. 1839, awarding a Diploma to the Wisconsin Prairie Plow.

A Green Sward Plow,—from E G Whiting. This article is constructed upon strict philosophical and mechanical principles, combining many advantages for tough, strong sward land, and those that are new and rooty, as well as those of ordinary kind, and cannot fail to be a favorite article.

C DEWEY,
L B LANGWOTHY, } *Judges.*
S W D MOORE,

Berkshire Pigs,

DIRECT from the stock of C. N. Bement, Albany, for sale by

THOMAS WRIGHT,

October 19, 1839.–w3w Near Macedonville, Wayne Co. N. Y.

For Sale,

A FEW thousand of the Morus Multicaulis trees, by the subscriber, at his farm, near Fairport, in Perinton, will be offered for sale, in lots to suits purchasers, on liberal terms. Persons who can make it convenient to call and examine them on the premises are requested to do so, before purchasing elsewhere All letters addressed to the subscriber shall receive prompt attention. ZERAH BURR.

Perinton, Sept. 5, 1839. sept14tf

Monroe Horticultural Garden and Nursery.

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Paonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer

April 1, 1838. ASA ROWE.

Agricultural Warehouse and Seed Store.

79 *Barclay-street, New-York.*

AT this old established stand, the subscribers take pleasure in announcing to the public, that they have made extensive arrangements to accommodate their friends in all articles connected with husbandry, viz:—Agricultural implements, a full and fresh supply of Field and Garden Seeds, Fruit Trees, Durham Cattle, Chinese and Berkshire pigs, 10,000 Morus multicaulis Mulberry trees; Publications on Rural subjects, &c.

Published here the Rural Library, S. Fleet, editor, a few copies of 1st vol. for sale. The object of this work is to constitute a Library at the least possible expense. 2d vol., commencing with Professor Low's Elements of Practical Agriculture, with nearly 250 fine engravings; subscription $3. Subscriptions received for the Genesee Farmer, Cultivator, &c. &c. J. W. WEAVER & CO.

April 20-wm1y 76 Barclay-st. New-York

Gilson's Patent Straw Cutter.

THIS Machine of which the annexed cut is a representation, has now been before the public about three years, and for its construction as a machine for cutting the various kinds of fodder its reputation stands unrivalled, and the Patentee and Manufacturers, challenge the world to produce a better article, when taking into consideration its peculiar advantages—These are—1st. It is so constructed that by turning a crank it feeds itself, and cuts a uniform length; 2d. By shifting small gear wheels the length of the cut is altered; the length's usually applied are three, viz: one inch, three-fourths, and half inch; but can be constructe so as to cut any required length; 3d. It is so constructed that the *cutting knives* can be taken off and ground or otherwise sharpened, and again replaced with ease and precision.

The increasing demand for this Machine has induced the Manufacturers to give its reputation a more extended circulation, in order that those wishing to purchase STRAW CUTTING MACHINES may know where the best article can be had at the reduced price of $12. This has induced the Makers to publish a few certificates.

We the subscribers have been in the habit of cutting straw &c for fodder and have found it extremely difficult to procure a machine suited to the various tastes of different persons until we obtained one of GILSON'S PATENT, this machine is constructed in such a manner that by applying the fodder and simply turning a crank it cuts uniform lengths. The knives cut on the principle of shears, and by the change of small gear wheels is in a moment made to cut different lengths; it is compact and easily carried from place to place, and from its durability of construction and its adaptation of *general principle* to the wants of the farmer and others wishing to cut fodder, that we do most cheerfully reccommend said machine to the notice and use of a generous and enlightened public.

John Dagget, Daniel Kenyon, Hiram Soverhill, A G Lawson Lauson Fisk, Arcadia, Wayne Co. N. Y.; Samuel S Perry, Stephen Brewster, Manchester, Ontario Co. N. Y.

This may certify that I have been acquainted with Gilson's Patent Straw Cutter, having used several for the combination Line on the Erie Canal, I hereby reccommend said machine for cutting straw above any or all others that I have ever seen.

Newark Feb. 4, 1839. (Copy.) L. P. HUTCHINSON.

To those wishing to purchase Straw Cutting Machines—It is now six or eight months since we purchased one of Gilson's Patent, and we do not hesitate to say that it has equalled our most sanguine expectation, we therefore reccommend it to the public as the best machine for cutting fodder with which we are acquainted.

JOHN & G. LONGMUIR.

Gilson's Patent Straw Cutter is made and sold by Joseph Hall and Jonas B Gilson, (near the Aequeduct) Rochester, N. Y; Gilbert Jessup, Arcadia, Wayne Co. N. Y.; Harris & Wilcox, Auburn, Cayuga Co. N. Y.; John McVicar, Hemlock Lake, Livingston Co. New York

In addition to the above, for sale by M B Bateham Rochester [Seed Store] New York; A L Smith, P. M. Weedsport, Cayuga Co. New York; Remson & Pelhamus, Lyons, Wayne Co. New York; Elbridge Williams, Palmyra, Wayne Co. New York; Stephen Brewster, Manchester, Ontario New York; John Pargo, I D Burgall, Geneva, Ontario Co. New York; A H Fairchild, P. M. North Bloomfield, Ontario Co. New York.

For reference, in addition to the proceeding, Enquire of T D Gilson, Plattsburgh, Clinton Co. New York; E B Fellows, Sennett, Cayuga Co. New York; P W Pulver, Pulver's Corners, Dutchess Co. New York; John Dagget, J P Barth, L P Hutchinson, Newark, Wayne Co. New York; Austin Jessup, Harbor Creek, Erie Co. Pa.; Miller and Kipp, Sherman, Chetauque Co. New York; Dr. E Simpson, Nassau, Rensseaelr Co. New York.

For information respecting the Patent or in relation to making and vending. Address [Post Paid,] Jonas B Gilson, Rochester, Monroe Co. New York; Samuel Gilson, Auburn, Cayuga Co. New York.

Wanted immediately two or three well qualified and responsible persons, to act as Agents in the selling of Patent rights upon shares; to such, a good chance will be given, good recomendations as to character &c. will be expected, Machinest's would be preferred.

Address as last mentioned.

N. B. They also Manufacture MACHINES for SLICING Potatoes, Turnops &c. sep26

GROSS IMPOSITION.

I have just seen a Prospectus, headed "Genesee Farmer Extra, 1839," for what purports to be a "new series" of the "Genesee Farmer,"—"N. Goodsell and J. E. Force, editors, and J. E. Force, proprietor,"—a large number of which, I am informed, have been printed in this city for circulation abroad. Justice to the public, as well as a regard to the good name of myself and paper, seem to render it obligatory on me to caution the public against this spurious Prospectus, which has been got up by a young man not yet of age, who has been employed in my office for a year past to keep my accounts and mail my papers. Had not Force and Goodsell, however, placed *the name of the Genesee Farmer* at the head of their Prospectus, thus giving it the character of an Extra issued from my office, and made statements which are altogether destitute of truth, I should not probably have deemed it necessary to have noticed their efforts, notwithstanding the dishonesty manifested in filching the name of my paper, and the perpetrator at the same time appropriating to himself the confidential knowledge of my business, books and correspondence, while yet in my employ. A simple statement of facts will serve to show whether the public will be likely to receive in return for their money, a paper of the high character of the present Genesee Farmer, or even any paper at all for any length of time. J. E. Force, who represents himself as proprietor, claims "a year's connection with the Genesee Farmer," from which the public might infer that he was or had been either one of its editors or proprietors. It is proper, therefore, to state the extent of his "*connection* with the Genesee Farmer," which consisted in his being employed in the office the last year to pack and carry the papers to the Post-Office at a salary of five dollars and a half a week. This Mr. Force, in an introductory note to the prospectus, which he acknowledges was not written by himself, is made to say that "he has engaged the editorial assistance of those who were formerly its editors, together with a number of its contributors." And the same thing is said in the body of the prospectus in still stronger language, as follows:—"The new series of the Genesee Farmer will have the editorial powers of gentlemen already distinguished in this cause, and long engaged in the editorial department of the old series, and thus offer the best security in return for the patronage of the public."

The representation here distinctly made is that the spurious Genesee Farmer is to be conducted by the editors of the *present* Genesee Farmer. Indeed the pledge that it is to be under their control is given as "security" to the public that the paper will be worthy of their patronage. The public can judge of the value of this "security," when they are informed that the statement is entirely *destitute of truth*—and that *no person* connected in any way with the editorial department of the Farmer for the last six years, has been or can be engaged to aid the proposed dishonorable attempt to transfer to an irresponsible concern the reputation or patronage obtained by nine years indefatigable service in the cause of Agriculture by the present conductors of the Genesee Farmer. It is, however, proper to say that the "N. Goodsell," whose name figures in the Prospectus with that of J. E. Force, was employed as a writer for the weekly Farmer during the first years of its existence; but he *six years* ago, without a moment's notice, or a word of difficulty occurring between us, broke off his engagement, and started an opposition paper called "*Goodsell's* Genesee Farmer," which proved an entire failure, as he did not succeed in withdrawing from my paper either its reputation, correspondents, friends or patronage; and the *base attempt*, as it was considered by all familiar with the circumstances at the time, proved an utter abortion, the paper having never completed its first volume. The public will be able to judge from this statement of facts in relation to "N. Goodsell and J. E. Force," whether their Prospectus is worthy of credence, and whether they will be likely to receive a paper worthy of their patronage, *or even any paper at all for any great length of time*, for such payments as may be remitted in advance for the counterfeit Genesee Farmer.

The contemplated union of the Genesee Farmer and Cultivator, (occasioned by the lamented death of Judge BUEL,) has, so far as has come to our knowledge, received the warm approbation of the friends of both papers. It may, however, not be amiss to caution the public against any *other attempt* which may be made to build up a spurious paper on the reputation and character of the Genesee Farmer, and thus defraud and disappoint the public, as we learn that there are other persons in this city who are prepared to make the attempt in case of the failure of the above named persons.

LUTHER TUCKER.

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Postscript.

Since the above was written, I have learnt that Force has sent off to the West large numbers of these Prospectuses *with the November No. of the Monthly Genesee Farmer*, the mailing of which he has delayed probably for that very purpose. Postmasters and others should therefore be on their guard against this Prospectus of Force and Goodsell, as it is not unlikely that they may find some of them done up in my papers. It may be proper also to state, that Force now assures me that he *shall not issue the proposed paper*, which I presume will prove true, as he must have relied upon anticipated *advance payments* for the means necessary to go on with it.

UNION OF THE GENESEE FARMER AND CULTIVATOR.

Since we announced to our friends our intentions and prospects for the future publication of the Farmer, we have received from Mr. J. BUEL, Jr., a proposition, (rendered proper and necessary by the death of his lamented father,) for the union of the Farmer and the Cultivator, the publishing business to be continued as formerly by him, and the Editorial responsibilities to be assumed by ourselves. Mr. Buel has since visited us; and, after full consideration, an arrangement has been effected, satisfactory to ourselves, and which, we trust, will prove no less so to the patrons and friends of both Journals.

The united paper will be issued at Albany, under the title of

THE CULTIVATOR:

BEING A CONSOLIDATION OF BUEL'S CULTIVATOR AND THE GENESEE FARMER.

The first No. of which will be published on the 1st of January next. WILLIS GAYLORD & LUTHER TUCKER, Editors; JESSE BUEL & Co. Proprietors. Albany, rather than Rochester, has been selected as the place of publication, from the greater facilities of obtaining paper; the procuring and engraving of the numerous cuts required in such a work; and its generally more central and favorable situation for receiving and forwarding packages and communications to all parts of the country.

That the interests of the subscribers will be promoted by the union of these Journals, is confidently anticipated. The vast amount of practical knowledge and skill, contributed to the columns of the separate papers, will now be embodied in one; and while each could boast of a circle of contributors of high rank in the science and practice of farming, it is scarcely possible their concentrated labors should fail of giving one of the most valuable agricultural journals of the world. To the subscribers for the Monthly Farmer, the price of the new paper will of course be enhanced,—the price continuing at one dollar per year; but when the increase in the size and quality of the sheet,—the greater quantity of matter that will be given by the use of close and smaller type—the number of cuts and illustrations that will be employed, and the general improvement in the united paper are taken into consideration, it is believed it will be found as cheap as the former, and as well worthy of their support and patronage.

In short, no effort shall be spared to give the united paper a character worthy of the high rank and standing which the original journals, on their separate merits, had acquired. Devoted solely to the cause of the agriculturist,—to his instruction and improvement as a cultivator of the soil, and to his moral and intellectual elevation as a man and citizen of the Republic we trust a paper will be offered worthy the confidence and the support of the American farmer.

All subscriptions to the Weekly and Monthly Genesee Farmer will, in consequence of this arrangement, terminate with the present year. We anticipate, however, and most respectfully request, that those kind friends who have heretofore done so much as Correspondents and Agents, to give the Genesee Farmer its high character and extensive circulation, will extend to us, in our removal to a more extensive field of usefulness, their continued assistance and kind offices. Post-Masters, Agents, and others, who will obtain subscribers, and transmit the subscription moneys free of charge, will be allowed commissions at the following rates:

For ten subscribers or over,	10 per cent.
twenty or over,	15 "
fifty or over,	20 "
one hundred or over,	25 "

It has been decided by the Postmaster-General, that Postmasters have the right to enclose money to the publishers of newspapers, for third persons. This liberal construction of the post-office law, we hope, will induce Postmasters to take an interest in the circulation of our paper, which we may assume, without vanity, will tend to improve agriculture wherever it circulates, and consequently to benefit the neighborhood.

In relation to the price of the Cultivator, which has been published for the last two years at one dollar a year, we copy the following from a recent number of that paper:—

"The publication of the Cultivator was commenced at 25 cents per volume; the price was afterwards advanced to 50 cents, and at the commencement of the fifth volume, to One Dollar per annum. It is due to our patrons to explain the cause of this increase in price. The size of our pages has been enlarged, the quantity of matter increased, and the quality of paper improved, until the expense of type-setting and paper, the two prominent items of our expense, is now more than double what it was when the price was fifty cents, and four times as great as it was when the price was but twenty-five cents. To enable the reader to judge of its now relative cheapness, compared with literary periodicals, we state, for their information, that a volume of the Cultivator, including its usual extra sheet, contains about double the quantity of matter that is contained in two volumes, published in a year, of the North American Review. The subscription price of the two volumes of the Review is Five Dollars—that of the Cultivator One Dollar. To be equal, in proportion to the quantity of matter, the price of the Cultivator should be Ten Dollars a year.—We are only enabled to print the Cultivator at this small price, from the extent of our subscription; and we are indebted for our liberal subscription o the kind offices of our correspondents and agents."

We shall send out with each of our packages this month, a Prospectus for the united paper; and should any gentlemen to whom it may be sent lack leisure to present it to his neighbors, he will do us a favor, and we think a public service, by placing it in the hands of some one who will take an interest in soliciting subscript.ons. It should be returned, or a list of the subscribers be sent to JESSE BUEL & Co., Albany, at as early a period as may suit the convenience of the agent.

☞ Agents and others who are indebted for the Farmer, are particularly requested to forward us the balances due, with as little delay as possible, as we wish to close up the accounts for the Genesee Farmer as speedily as possible. We shall keep our old office open at *Rochester*, for the settlement of accounts through the ensuing winter, where also subscriptions will be received for the Cultivator, though all letters intended for that paper, should be addressed to Jesse Buel & Co., Albany.

☞ All subscribers who have paid in advance for either the Weekly or Monthly Farmer, will have the united paper continued to them until their advance payments are exhausted. Should any one, however, prefer to have his money returned, it will be remitted in any way he may direct.

SEEDS FOR 1840.—M. B Batcham, proprietor of the Rochester Seed Store, is happy to inform his friends and the public, that he has just returned from a tour in Europe, and has imported from thence, a very choice stock of Garden, Field, and Flower Seeds, of this year's growth, selected by himself, among the very best growers. The assortment includes all the most valuable articles, embracing many new and improved varieties.

His new stock of American Seeds is also unusually large and fine.

A fine lot of Dutch Bulbous Roots are just received in good order.

A good collection of Garden Tools, Books, &c., on hand, as usual.

☞ Merchants and others supplied with Seeds by wholesale, at very low prices. A large discount made for cash.

Catalogues sent to all applicants, gratis. M. B. BATCHAM.

nov30